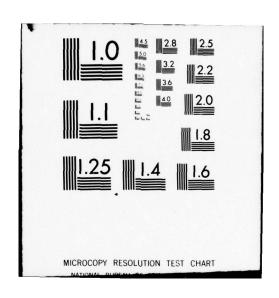
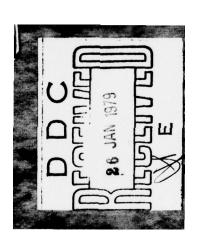
NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/6 4/2 SUMMARY OF METEOROLOGICAL OBSERVATIONS, SURFACE (SMOS) WILLOW 6--ETC(U) JUL 78 AD-A063 832 NL UNCLASSIFIED 1 of 4 AD A063832





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19. KEY WORDS (Continue on reverse side if necessary and Climatology, surface wind, temperarelative humidity, station pressur daily temperature, weather conditifacility, coastal region, snow dep	d Identify by block number; ture, precipitate, extreme temper ons, monthly clipth, cloud cover, d Identify by block number; part statistica	Dist. AVAIL and/or SPECIAL Dist. AVAIL and/or SPECIAL pratures, sea level pressure, imatology, Naval shore Willow Grove, PA. al summary of surface
19. KEY WORDS (Continue on reverse side if necessary and Climatology, surface wind, temperarelative humidity, station pressur daily temperature, weather conditifacility, coastal region, snow deposition. 20. ABSTRACT (Continue on reverse side if necessary and This data report consists of a six weather observations. The six par	d Identify by block number; ture, precipitate, extreme tempe ons, monthly cli th, cloud cover,	Dist. AVAIL and/or SPECIAL Dist. AVAIL and/or SPECIAL pratures, sea level pressure, imatology, Naval shore Willow Grove, PA. al summary of surface Weather Conditions/
19. KEY WORDS (Continue on reverse side if necessary and Climatology, surface wind, temperarelative humidity, station pressur daily temperature, weather conditifacility, coastal region, snow deposition of the second statement of the second statem	d Identify by block number; ture, precipitate, extreme tempe ons, monthly click, cloud cover, didentify by block number; part statisticates are: Part A recipitation/Snow	Dist. AVAIL and/or SPECIAL A SUMMARY of Server and
19. KEY WORDS (Continue on reverse side if necessary and Climatology, surface wind, temperarelative humidity, station pressur daily temperature, weather conditifacility, coastal region, snow deposition on reverse side if necessary and This data report consists of a six weather observations. The six para Atmospheric Phenomena, Part B - Pr	d Identify by block number; ture, precipitate, extreme tempe ons, monthly click, cloud cover, didentify by block number; part statisticates are: Part A recipitation/Snow	Dist. AVAIL and/or SPECIAL A SUMMARY of Server and

SUMMARY OF METEOROLOGICAL OBSERVATIONS, SURFACE

DIRNAVOCEANMET 1tr 3146 Ser 1032 dated 26 August 1977 (NOTAL) established the following policy for SMOS production and updating:

- Ten years of data will be used as the standard period of record (POR).
- 2. All available data will be used for extreme values.
- 3. Summarize (update) every five years.
- 5 year summary will be an intermediate SMOS to show secular trends. All available data through 1977 Summarize the five year period (1973-1977) for all sections of the SMOS except extremes. will be included for extreme values.
- The update in 1983 will include the POR 1973 through 1982, with all available data through 1982 for extreme values.
- All available data through The update in 1988 will be an intermediate SMOS (POR 1983-1987). 1987 will be included for extreme values.
- d. In 1993 the POR will be 1983 through 1992. All available data through 1992 will be used for extreme values.

Each standard POR (10 years) summary should be retained by individual stations along with the SMOS pre-pared in 1973. The retention of these summaries will provide the most comprehensive climatological file for your station.

mary and the manner of presentation. Tabulations are prepared from 3-hourly and daily observations recorded by stations operated by the U.S. Navy and U.S. Marine Corps. 3-hourly observations are defined as these record or record-special observations recorded at scheduled 3-hourly intervals. Daily observations are selected from all data recorded on reporting forms and combined into Summary of the Day obser-DESCRIPTION: Preceding each section is a brief description of the data comprising each part of the sumvations (prepared from record-special, local, summary of the day, remarks, etc.).

or erroneous value. The cost of preparing "perfect" copy can be prohibitive due to the handwork involved. Suspect cases will occur infrequently, but users should not disregard extreme values completely as some could be valid. Questionable values will most likely be single occurrences shown by a percentage frequency of ".0". (This value indicates a percent less than ".05," which, in most cases, reflects a single reasonableness prior to, or during, the processing stage. Efforts to improve the quality of the data after summarization are expensive, i.e., the improvement might consist of the elimination of one suspect COMMENT: All observations summarized in this tabulation have been computer edited for consistency and Since most stations summarized now have in excess of 10,000 3-hourly observations, the occurrence of an occasional spurious value should not in itself be considered significant. Every is made by this office to maintain a high degree of accuracy and reliability in these tables, and laval Weather Service Detachment (NWSD), Asheville, N. C. welcomes your comment and criticisms. observation.

NWSD, Federal Building Asheville, N. C.

ART A

WEATHER CONDITIONS

This summary is a percentage frequency occurrence of various atmospheric phenomena and obstructions to vision, derived from 3-hourly observations, and is presented in three tables as follows:

- . By month and annual, all hours and years combined.
- By month and annual, all hours and years combined, by wind direction.
- By month, all years combined, by standard 3-hour groups.

Occurrences of the various phenomena included in each category on the forms are listed below:

Thunderstorms - All reported occurrences of thunderstorm, tornado, and waterspout.

Rain and/or drizzle - All liquid precipitation, falling to the ground, not freezing.

Freezing rain and/or freezing drizzle (glaze) - Precipitation falling in liquid form, but freezing on contact with an unheated surface.

Snow and/or sleet - Include are snow, sleet, snow pellets (soft hail), snow grains, and ice crystals.

Hail Occurrences of hail and small hail are included.

Percentage of observations with precipitation - Included in this category are the observations when one or more of the above phenomena occurred. Since more than one type of precipitation may be reported in the same observation, the sums of the individual categories may exceed the total columns. more of the above phenomena occurred.

Fog - Included are fog, ice fog, and ground fog.

Smoke and/or haze - Occurrences of smoke, haze, or combinations of smoke and haze are included.

Blowing snow - Occurrences of blowing snow (also drifting snow when reported from non-WBAN sources.)

Dust and/or sand - Included are blowing dust, blowing sand, and dust.

Blowing spray - This item if reported, is not shown in a separate category on this form but is included in the computation Percentage of Observations with Obstructions to Vision.

to vision for purposes of this summary; therefore, the percentage total of obstructions to vision need not reflect the total observations with reduced visibility. Percentage of observations with obstructions to vision - Included in this category are the observations when one or more of the above obstructions to vision occurred. Since more than one type of obstruction may be reported in the same observation, the sums of the individual categories may exceed the percentage total columns. Also, although precipitation may reduce visibility, it is not considered an obstruction

Percentages The total number of observations may vary among tables within the same month and period. may not always equal 100.0 due to rounding practices. NOTE:

PART A

ATMOSPHERIC PHENOMENA

This summary is a presentation of the percentage of days with occurrences of various atmospheric phenomena. These data are obtained from all recorded information on the reporting forms and combined into a daily observation.

may occur in the same daily observation, the sum of the values in the individual columns may not equal the centage of observations. Since more than one type of precipitation or more than one type of obstruction The descriptions of the phenomena in the Weather Conditions Summary above also apply for the categories summarized in these tabulations. However, it should be noted that in this summary the columns headed "% OF OBS WITH PRECIP" and "% OF OBS WITH OBST TO VISION" show the percentage of days rather than pertotal columns.

This presentation is by month with annual totals, and is prepared with all years combined.

A day with rain and/or drizzle was not separately reported in WBAN data prior to January 1949. Therefore percentages in this column are restricted to the period January 1949 and later. NOTE:

A day with dust and/or sand was punched and included in this summary only when visibility was less than 5/8 mile.

Summary consists of weather conditions (horizontally) and wind directions (vertically) to 16 compass points Percentage Frequency of Wind Direction vs. Weather Conditions - This tabulation is derived from 3-hourly observations and is presented by month and annual, all hours and years combined. The main body of the "% Total" indicates percentage frequency (plus calm). Column totals show the number of observations. of occurrences.

14793 STATION

WILLOW GROVE, PENNSYLVANIA

73-77

YEARS

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PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

TOTAL NO. OF OBS.	155	155	155	155	155	155	155	155		1240
% OF OBS WITH OBST TO VISION	17.4	23.2	0.62	40.0	34.5	31.0	21.3	21.3		27.3
DUST AND/OR SAND										
BLOWING					9.	•	9.	•		
SMOKE AND/OR HAZE	3.9	6.9	0.6	22.6	21.3	21.3	10.3	7.7		12.8
50	13.5	16.8	23.9	21.3	15.5	11.0	11.6	13.5		15.9
% OF OBS WITH PRECIP.	14.2	14.8	12.3	11.6	11.6	11.0	14.8	12.3		12.8
HAIL										
SNOW AND/OR SLEET	4.5	3.2	4.5	80.00	5.2	3.9	5.2	4.5		4.6
FREEZING RAIN &/OR DRIZZLE	1.3	1.9	1.3	1.3	9.	1.3	1.3	1.3		1.3
RAIN AND/OR R DRIZZLE	0.6	6.7	7.1	4.5	6.5	5.8	8.4	6.5		7.2
THUNDER. STORMS										
HOURS (L.S.T.)	10	40	10	10	13	16	19	22		
MONTH	MAL									TOTALS

14793 STATION

WILLOW GROVE, PENNSYLVANIA

73-77

YEARS

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PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

		_					-	-	 _	 -	
NO. OF OBS.	141	141	141	141	151	191	191	141			1128
% OF OBS WITH OBST TO VISION	15.6	16.9	31.2	33.3	1.62	25.5	16.3	19.9			23.2
DUST AND/OR SAND											
BLOWING								1.4			*
SMOKE AND/OR HAZE	2.1	2.1	12.1	18.4	14.9	14.2	4.3	5.7			9.5
200	13.5	12.8	22.0	17.7	14.2	11.3	11.3	12.8			14.5
% OF OBS WITH PRECIP.	7.8	11.3	11.3	8.5	6.6	12.1	12.8	14.2			11.0 14.5
HAIL											
SNOW AND/OR SLEET	3.5	5.7	4.0	4.3	4.3	5.0	5.7	5.7			5.1
FREEZING RAIN &/OR DRIZZLE			1.4					1.4			
RAIN AND/OR DRIZZLE	4.3	4.9	5.0	3.5	5.7	6.4	7.1	7.1			5.7
THUNDER- STORMS			.7				3				.2
HOURS (LS.T.)	01	90	10	10	13	16	19	22			
MONTH	FEB										TOTALS

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WILLOW GROVE, PENNSYLVANIA

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YEARS

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PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

TOTAL NO. OF OBS.	155	155	155	185	155	155	155	155		1240
% OF OBS WITH OBST TO VISION	20.6	25.2	35.5	31.6	29.7	5.92	23.9	22.6		27.0
DUST AND/OR SAND										
BLOWING	•									-:
SMOKE AND/OR HAZE	3.2	3.9	11.0	12.9	11.0	10.3	5.8	3.9		7.8
Po S	18.1	22.6	29.0	20.0	19.4	16.8	18.1	18.7		20.3
% OF OBS WITH PRECIP.	10.3	12.9	12.9	18.1	15.5	14.2	14.2	12.3		13.8
HAIL										
SNOW AND/OR SLEET	٠.	1.3	•	3.9	3.2	1.3	1.3	9.		1.6
FREEZING RAIN &/OR DRIZZLE	9.			9.				9.		.2
RAIN AND/OR DRIZZLE	9.0	12.3	12.3	14.2	12.3	12.9	12.9	11.0		12.1
THUNDER. STORMS						9.				.1
HOURS (L.S.T.)	10	40	10	10	13	16	19	22		
MONTH	MAR									TOTALS

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WILLOW GROVE, PENNSYLVANIA

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PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

10.7	DRIZZLE SLEET	PRECIP.	200	AND/OR HAZE	SNOW	AND/OR SAND	WITH OBST TO VISION	NO. OF
13.3		8.0	0 13.3	3.3			15.3	150
13.3		11.3	3 15.3	2.7			17.3	150
13.3		9.3	3 20.0	15.3			30.0	150
12.7		13.3	3 10.0	15.3			24.7	150
6		13,3	3 10.7	12.0			22.7	150
2		9.3	3 8.0	15.3			22.0	150
.7 10.0		10.0	0 8.7	14.0			22.7	130
1.3 9.3		6.9	3 11.3	2.0			12.7	150
.3 10.2	4.	10.	10.5 12.2 10.0	10.0			20.9	1200

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WEATHER CONDITIONS

YEARS

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

TOTAL NO. OF OBS.	155	155	155	155	155	155	155	154		1239
% OF OBS WITH OBST TO VISION	25.8	35.5	43.9	27.1	27.1	31.6	32.9	27.9		31.5
DUST AND/OR SAND										
BLOWING										
SMOKE AND/OR HAZE	0.6	11.0	20.6	13.5	19.4	26.5	21.3	14.3		17.0
FOG	20.0	29.7	32.3	15.5	0.6	7.1	12.9	14.9		11.2 17.7 17.0
% OF OBS WITH PRECIP.	0.6	11.6	0.6	7.1	12.9	14.2	13.5	12.3		11.2
HAIL										
SNOW AND/OR SLEET				9.						.1
FREEZING RAIN &/OR DRIZZLE										
RAIN AND/OR DRIZZLE	6.0	11.6	9.0	7.1	12.9	14.2	13.5	12.3		11.2
THUNDER- STORMS	4.	9.				1.9	1.3	1.3		۲.
HOURS (L.S.T.)	0.1	*0	07	10	13	16	19	22		
МОМТН	мау									TOTALS

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PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

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NO. OF OBS.	150	150	150	150	190	150	150	150		1200
% OF OBS WITH OBST TO VISION	42.7	0.09	0.29	50.0	0.44	45.0	45.0	37.3		47.5
DUST AND/OR SAND										
BLOWING										
SMOKE AND/OR HAZE	19.3	23.3	45.0	38.7	36.7	36.0	34.7	21.3		31.5
90	30.7	51.3	38.7	16.7	8.7	7.3	0.0	18.7		22.5
% OF OBS WITH PRECIP.	11.3	9.3	9.3	9.3	10.7	8.7	10.7	9.3		9.8
HAIL										
SNOW AND/OR SLEET										
FREEZING RAIN &/OR DRIZZLE										
RAIN AND/OR DRIZZLE	11.3	6.6	9.3	6.3	10.7	8.7	10.7	6.3		9.8
THUNDER- STORMS	2.0	2.0	1.3		2.7	1.3	4.7	1.3		1.9
HOURS (L.S.T.)	10	40	07	01	13	16	61	22		
MONTH	NOS									TOTALS

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PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

ากเ	(LS.T.)	THUNDER- STORMS	AND/OR DRIZZLE	RAIN &/OR DRIZZLE	AND/OR SLEET	HAIL	OBS WITH	50	AND/OR HAZE	BLOWING	AND/OR SAND	WITH OBST TO VISION	NO. OF
	10	1.3	3.9				3.9	20.6	31.0			43.2	155
	*0	1.3	6.5				6.5	38.1	33.5			51.6	155
	07	9.	4.5				4.5	39.4	44.5			65.2	155
	10	9.	5.2				5.2	8.4	46.5			51.6	155
	13	9.	1.0				1.9	3.2	45.2			47.7	155
	16	3.2	5.8				5.8	3.2	49.7			51.6	155
	19	9.	3.9				3.9	3.9	52.9			55.5	155
	22	3.2	4.5				4.5	14.8	37.4			45.2	155
TOTALS		1.4	2.4				4.5	16.5	42.6			51.5	1240

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WILLOW GROVE, PENNSYLVANIA

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PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

							-		 	
TOTAL NO. OF OBS.	155	155	155	155	155	155	155	155		1240
% OF OBS WITH OBST TO VISION	52.3	95.0	74.8	61.9	61.3	58.7	61.9	50.3		60.5
AND/OR SAND										
BLOWING										
SMOKE AND/OR HAZE	34.2	30.3	41.9	52.3	55.5	55.5	54.8	38.1		45.3
80	31.6	50.3	58.1	16.1	0.6	6.9	11.6	18.1		25.2 45.3
% OF OBS WITH PRECIP.	3.9	5.2	100	6,5	3.9	7.7	5.8	5.2		8.8
HAIL										
SNOW AND/OR SLEET										
FREEZING RAIN &/OR DRIZZLE										
RAIN AND/OR DRIZZLE	3.9	5.5	4.8	6.9	3.9	7.7	5.3	5.2		8.8
THUNDER- STORMS	1.3	1.3	1.9	9.		5.8	3.9	1.9		2.1
HOURS (L.S.T.)	01	40	07	10	13	16	19	22		
MONTH	AUG									TOTALS

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PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

		T			T	T			1	T	
NO. OF OBS.	150	150	150	150	150	150	150	150			1200
% OF OBS WITH OBST TO VISION	46.0	48.7	2.09	52.0	45.3	42.7	43.3	39.3			47.3
AND/OR SAND											
BLOWING											
SMOKE AND/OR HAZE	22.7	22.7	31.3	38.7	39.3	35.3	31.3	24.0			30.7
50	34.7	42.7	52.0	18.7	9.3	8.7	13.3	19.3			11.6 24.8
% OF OBS WITH PRECIP.	11.3	10.7	10.7	13.3	10.7	10.7	11.3	14.0			11.6
HAIL											
SNOW AND/OR SLEET											
FREEZING RAIN &/OR DRIZZLE											
RAIN AND/OR DRIZZLE	11.3	10.7	10.7	13.3	10.7	10.7	11.3	14.0			11.6
THUNDER. STORMS	1.3	2.0	.7		.7	2.0		2.0			1.3
HOURS (L.S.T.)	10	*	07	10	13	16	19	22			
MONTH	SEP										TOTALS

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WEATHER CONDITIONS

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN &/OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	500	SMOKE AND/OR HAZE	BLOWING	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
10		10.3				10.3	27.1	11.6			32.3	155
*0		11.0				11.0	32.9	9.0			35.5	155
10		10.3				10.3	38.1	12.3			45.6	155
2		11.6				11.6	18.7	23.2			39.4	185
13		11.0				11.0	9.0	23.9			32.9	155
16	9.	10.3				10.3	7.7	24.5			31.6	155
19		0.6				0.6	11.6	16.1			27.1	155
22		7.1				7.1	16.8	13.5			27.7	155
	.1	10.1				10.1	10.1 20.2	16.8			33.6	1240

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WILLOW GROVE, PENNSYLVANIA

14793 STATION

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73-77

WEATHER CONDITIONS

NON

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

150	150	150	150	150	150	150	150				1200
20.0	21.3	34.7	40.7	30.0	34.0	20.7	19.3				27.6
4.7	3,3	8.1	25.3	20.0	22.7	7.3	6.7				12.3
18.0	19.3	29.3	18.7	10.7	12.0	14.7	14.7				17.2
10.7	12.0	10.0	9.3	10.0	8.0	10.0	11.3				10.2
			1.3	2.7		2.0	.,				8
			۲.	۲.							2.
10.7	12.0	10.0	0.0	6.7	80	7.8	10.7				4.6
											2.
01	40	07	10	13	16	19	22				
VON											TOTALS
	01 10.7 18.0 4.7 20.0	04 12.0 19.3 3.3 20.0	01 10.7 10.7 18.0 4.7 20.0 04 12.0 12.0 19.3 3.3 21.3 07 10.0 10.0 29.3 8.7 34.7	01 10.7 10.7 18.0 4.7 20.0 04 12.0 12.0 19.3 3.3 21.3 07 10.0 10.0 29.3 8.7 34.7 10 8.0 .7 1.3 9.3 18.7 25.3 40.7	01 10.7 10.7 18.0 4.7 20.0 04 12.0 12.0 19.3 3.3 21.3 07 10.0 10.0 29.3 8.7 34.7 10 8.0 .7 1.3 9.3 18.7 25.3 40.7 13 6.7 .7 2.7 10.0 10.7 20.0 30.0	01 10.7 10.7 18.0 4.7 20.0 04 12.0 12.0 19.3 3.3 21.3 07 10.0 10.0 29.3 8.7 34.7 10 8.0 .7 1.3 9.3 18.7 25.3 40.7 13 6.7 .7 2.7 10.0 10.7 20.0 30.0 16 .7 8.0 8.0 12.0 22.7 34.0	01 10.7 10.7 10.7 18.0 4.7 20.0 04 12.0 12.0 19.3 3.3 21.3 07 10.0 10.0 29.3 8.7 34.7 10 8.0 .7 1.3 9.3 18.7 25.3 40.7 14 .7 8.0 10.0 10.7 20.0 30.0 19 .7 8.7 2.0 10.0 14.7 7.3 20.7	01 10.7 10.7 18.0 4.7 20.0 04 12.0 12.0 19.3 3.3 21.3 07 10.0 10.0 29.3 8.7 34.7 10 8.0 .7 1.3 9.3 18.7 25.3 40.7 13 6.7 .7 2.7 10.0 10.7 20.0 30.0 16 .7 8.0 12.0 22.7 34.0 19 .7 8.7 2.0 10.0 14.7 7.3 20.7 22 10.7 .7 11.3 14.7 6.7 19.3	04 12.0 10.7 10.7 18.0 4.7 20.0 07 10.0 10.0 29.3 8.7 34.7 10 8.0 .7 1.3 9.3 18.7 25.3 40.7 13 6.7 .7 2.7 10.0 10.7 20.0 30.0 19 .7 8.7 2.0 10.0 14.7 7.3 20.7 22 10.7 .7 11.3 14.7 6.7 19.3	04 12.0 10.7 18.0 4.7 20.0 07 10.0 10.0 10.0 29.3 8.7 34.7 10 8.0 .7 1.3 9.3 18.7 25.3 40.7 13 6.7 .7 2.7 10.0 10.7 20.0 30.0 16 .7 8.0 12.0 22.7 34.0 19 .7 8.7 10.0 14.7 7.3 20.7 22 10.7 .7 11.3 14.7 6.7 19.3	04 12.0 10.7 10.0 4.7 20.0 07 12.0 12.0 12.0 19.3 3.3 21.3 10 8.0 10.0 10.0 29.3 8.7 34.7 10 8.0 .7 2.7 10.0 10.7 25.3 40.7 19 .7 8.0 10.0 10.0 14.7 7.3 20.7 22 10.7 .7 11.3 14.7 6.7 19.3

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14793 STATION

12648-8605 HTM

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WILLUM GROVE, PENNSYLVANIA

73-77

DEC

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

4 o s	155	155	155	155	155	155	155	155	
TOTAL NO. OF OBS.									
% OF OBS WITH OBST TO VISION	20.0	23.2	27.7	35.5	28.4	27.1	23.9	23.2	
DUST AND/OR SAND									
BLOWING		9.	9.		•	9.	1.3	•	
SMOKE AND/OR HAZE	4.5	3.9	4.5	16.8	14.8	15.5	7.1	7.1	
FOG	16.1	18.7	23.2	20.0	12.9	11.6	15.5	16.1	
% OF OBS WITH PRECIP.	11.0	13.5	13.5	16.1	12.3	18.7	13.5	13.5	
HAIL									
SNOW AND/OR SLEET	2.6	3.2	3.2	4.5	3.2	5.8	3.2	3.2	
FREEZING RAIN &/OR DRIZZLE			9.	9.					
RAIN AND/OR DRIZZLE	8.4	10.3	10.3	11.0	9.0	12.9	10.3	10.3	
THUNDER- STORMS									
HOURS (L.S.T.)	10	40	07	10	13	16	10	22	
МОМТН	DEC								

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10



WEATHER CONDITIONS ALL

WILLOW GROVE, PENNSYLVANIA

14793 STATION

10

0

73-77

PERCENTAGE PREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

TOTAL NO. OF OBS.	1240	1126	1240	1200	1239	1200	1240	1240	1200	1240	1200	1240	14607
% OF OBS WITH OBST TO VISION	27.3	23.2	27.0	50.9	31.5	47.5	51.5	60.5	47.3	33.6	27.6	26.1	35.3
DUST AND/OR SAND													
BLOWING	.3	*	-									. 5	7
SMOKE AND/OR HAZE	12.8	9.5	7.8	10.0	17.0	31.5	45.6	45.3	30.7	16.8	12.3	9.3	20.4
8	15.9	14.5	20.3	12.2	17.7	22.5	16.5	25.2	24.8	20.2	17.2	16.8	18.6
% OF OBS WITH PRECIP.	12.8	11.0	13.8	10.5	11.2	8.6	4.5	5.8	11.6	10.1	10.2	14.0	10.4
HAIL													
SNOW AND/OR SLEET	4.0	5.1	1.6	*.	-:						80	3.6	1.3
FREEZING RAIN &/OR DRIZZLE	1.3		2.								.2	.2	.2
RAIN AND/OR DRIZZLE	7.2	5.7	12.1	10.2	11.2	6.6	4.5	5.8	11.6	10.1	4.0	10.3	0.6
THUNDER. STORMS		.2		.3	.7	1.9	1.4	2.1	1.3	-:	.2		. 7
HOURS (L.S.T.)	ALL												
МОМТН	NAD	FEB	MAR	APR	MAY	CON	705	AUG	SEP	100	NON	DEC	TOTALS

0

40

10

0

0

0

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WEATHER CONDITIONS ATMOSPHERIC PHENOMENA

WILLOW GROVE, PENNSYLVANIA

14793 STATION

49-550 570

65-66, 68-77

ALL

PERCENTAGE OF DAYS WITH VARIOUS ATMOSPHERIC PHENOMENA FROM DAILY OBSERVATIONS

TOTAL NO. OF OBS.	430	399	**	404	462	428	371	***	367	402	423	401	4986
% OF OBS WITH OBST TO VISION	66.7	63.4	63.2	57.2	71.4	84.1	94.6	86.2	82.0	71.6	66.7	67.3	72.0
AND/OR SAND													
BLOWING	1.9	4.5	1.6	*:								2.5	1.2
SMOKE AND/OR HAZE	53.5	1.44	47.5	1111	9.09	74.8	90.0	95.6	70.8	95.2	52.7	4.64	0.00
90	42.8	39.6	43.3	37.4	55.4	61.9	63.6	66.3	2.69	56.5	6.44	43.6	52.0
% OF OBS WITH PRECIP.	51.2	6.44	51,8	47.2	9119	47.9	41.8	40.2	39.5	36.8	47.3	53.9	46.2
HAIL			.2	2.	1.1		5	2.		5.			
SNOW AND/OR SLEET	27.7	24.6	18.6	9,1	.2					1.2	10.2	6.52	9.5
FREEZING RAIN &/OR DRIZZLE	9.6	0.4	1.6	-								0.4	1.4
RAIN AND/OR R DRIZZLE	33,3	30.6	42.2	45.5	51.3	47.9	41.8	40.2	39.2	36.3	42.3	39.4	60.0
THUNDER- STORMS	\$	113	3.6	7.3	11.7	17.8	21.6	19.6	9.8	2.5	4.3	.5	9.4
HOURS (L.S.T.)	DAILY												
MONTH	NAC	FEB	MAR	APR	MAY	NO.	100	AUG	SEP	730	NON	250	TOTALS

WILLUW GROVE, PENNSYLVANIA 14793 STATION

JAN 1973-DEC 1977

JANUARY

ALL HOURS (L.S.T.)

WEATHER	62.3	47.1	57.9	29.0	39.3	30.8	42.9	41.7	42.6	54.3	63.0	82.9	84.9	88.1	86.6	17.6		V	867	6.69
SAND SAND AND DUST																		M		
BLOWING														4.		2.4		M	4	
SMOKE	13.1	17.6	5.3	19.4	25.0	1.62	32.1	41.7	27.7	53.9	15,2	1104	7.1	5.3	9.6	5.9		X	156	12.6
ICE FOG GROUND FOG		5.0		3.5	3.4	11.5	7.1	er:		4.3	6.3		1.3	٠.		3.5		X A	32	2.6
207	23.0	23.5	26.3	41.9	26.8	34.6	14.3	8.3	52.5	17.4	79.5	5.9	4	9 . 4	2.0	9.6		¥	163	13.3
THUNDER																		\bigvee		
HAIL SMALL HAIL																		M		
SNOW " GRAINS " PELLETS " SHOWERS	11.5	11.8	10.5	4.6	8	11.5	7.1		2.1	2.2	2.2	4.3	0	2.6	(A)	4.7			35	4.4
SLEET SHOWERS ICE CRYSTALS							3.6	4.2										M	~	
FREEZING RAIN FREEZING 10	1.6			4.6	3.4			4.2										N.	91	1.3
DRIZZLE FI	1.6		5.3	16.1	7.1	3.8	3.6	4.2		2.2						1.2		Z¥	57	1.9
RAIN					1.8	3.8												X	4	.3
NIAN	11.5	11.3	21.1	12.9	14.3	11.5	14.3	60	19.1	6.31	4.3		1.3	1.3	2.8	7.1		X	69	3.6
WIND	z	NNE	NR.	ENE	E	ESE	SE	SSE	s	SSW	SW	WSW	*	WNW	WN	MNN	VARIABLE	CALM	TOTAL	% TOTAL

TOTAL NUMBER OF OBSERVATIONS

1,240

MILLOU	VILLOW GROVE.	PENNSYLVANIA	JAN 1973-DEC 1977	FEBRUARY
		STATION NAME	YEARS	MONTH

NO	72.9	55.9	66.7	48.6	47.5	56.0	66.7	41.7	62.	19.4	73.3	77,02	2.28	2116	0 99	65.4			838	10.0
SAND SAND AND DUST																		\bigvee		
BLOWING															6 7	2.2		\bigvee	•	
SMOKE	8.5		3.7	2.4	8.6	6.8		20.8	1501	13.2	15.0	12.3		3.5	4.	6.0		X	103	106
GE FOG GROUND FOG						4.0			2.0		1.1	1.8	1.9						==	0.1
50	19.3	6999	18.3	35.1	36.1	0 . 82	53.3	37.5	17.0	4.4	8.5	80		30.5	6.9	6.4			152	13.5
THUNDER			3.7															\bigvee	~	2.
HAIL SMALL HAIL																		X		
SNOW GRAINS PELLETS SHOWERS	20.3	17.6	14.8	13.5	9.9	4.0		4.2		1.5	1.1		1.3		200	0.5		X	22	0.4
SLEET S " SHOWERS ICE CRYSTALS		5.9	3.7		9.1											1.1		V \	8	6.
FREEZING RAIN FREEZING DRIZZLE		80	3.1	2.7	6.4													X	æ	
DRIZZLE	1.7	5.0	7.4	2.7	6.4			4.2	2.0				0.			1.1		Ž	14	1.2
SHOWERS					9.9			8.3	3.9	1.5		1.8	9.					V	12	1.1
NIA		80		16.2	11.3	8.0	16.7	20.8	00	5.0		1.8	1.3		2.8	1.1		X	42	3.7
WIND	z	NNE	m N	ENE	w	ESE	SE	SSE	s	SSW	NS.	WSW	*	WNW	N.N.	MNN	VARIABLE	CALM	TOTAL	% TOTAL

TOTAL NUMBER OF OBSERVATIONS

1,128

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NAVWEASERVCOM

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PIT

MARCH JAN 1973-0EC 1977 WILLUW GROVE, PENNSYLVANIA

ALL

WEATHER	76.5	72.0	64.9	44.2	36.2	38.8	40.4	2.95	63.0	71.7	72,6	78.6	86.3	86.3	89.8	95.8		N N	874	70.5
SAND SAND AND DUST																		\bigvee		
BLOWING		4.0																\bigvee	-	7.
SMOKE	2.0		2.4		9.8	21.3	15.4	30.8	17.4	13.3	46	14.3	6.	4.3	2 . 2	1.2		\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	68	1.1
00 00 00 00 00 00 00 00 00 00 00 00 00	2.0	0.4	2.7	2.3	6.7	2.5	1.9	9.1	6.9		6.5		5.6	4.3	5.9	2.1		2	4	3.5
50	15.7	20.0	29.7	48.8	47.6	40.0	38.5	12.8	10.0	13,3	9.1	7.1	0.9	2.2	3.0	4.1		N. C.	208	16.5
THUNDER													6.					\bigvee	-	-:
HAIL																		X		
SNOW GRAINS PELETS SHOWERS	3 6		2.7	6	4.8						1.6			7.4					60	1.5
SLEET SHOWERS			2.7	2.3														M	2	. 2
FREEZING RAIN FREEZING DRIZZLE	3.0			2.3														\bigvee	6	.2
DRIZZLE	5.9	0	3.4	0.41	13.2	11.3	1.9		2.2	1.7		2.4						X	4	3.6
RAIN		4.0		2.3	1.9	1.3	1.9	5.1	4.3	3.0	3.2	2.4	4.3	1.4				X	23	1.9
NAN	2.0	0 4	10.8	11.6	14.3	16.3	28.8	15.4	4.3	3.3	4.3	2.4		6.5	3.6	1.0		X	86	6.9
WIND	z	NNN	NE	ENE	m m	ESE	SE	SSE	s	SSW	SW	WSW	*	WNW	××	MNN	VARIABLE	CALM	TOTAL	% TOTAL

NAVWEASERVCOM

1,240

TOTAL NUMBER OF OBSERVATIONS

WILLOW GROVE, PENNSYLVANIA 14793

ALL	HOURS (L.S.T.
APRIL	MONTH
JAN 1973-DEC 1977	YEARS

100

TOTAL NUMBER OF OBSERVATIONS

1,200

2

X

X

2

924 17.0

118

5.4

117

4 10

1.3

0.0

6.0

5.7

TOTAL %

S X

X

CALM

NAVWEASERVCOM

WILLOW GROVE. PENNSYLVANIA 14793 STATION

JAN 1973-DEC 1977

MAY

ALL

WEATHER	82.4	70.3	60.09	44.8	36.4	35.8	38.2	52.8	4.19	62.2	67.1	72.6	10.1	78.7	86.5	75.9			-
SAND SAND AND DUST																		X	
BLOWING																		X	
SMOKE	4.4	16.2	4.3	20.7	18.2	55.6	29.4	52.6	14.5	21.4	51.5	10.4	18.6	1107	6.0	13.8		740	
GROUND FOG		2.7		3.4	3.0	7.5	5.9	1.9	3.6	4.1	5.5	6.8	8.0	3.2	1.0			N. A.	
500	4.4	10.8	34.8	27.0	43.9	45.3	56.5	15.1	15.7	2.8	7.0	5.5	4.9	3.2	1.0	2.5		N. A.	
THUNDER				3.4				3.8		1.0		1.0		2.1		1.7			
SMALL																		X	
SNOW GRAINS PELLETS SHOWERS														1.1				X	
SLEET SHOWERS ICE																		X	
FREEZING RAIN FREEZING																		X	
DRIZZLE			4		10.6	1.9		3.00	2.4	1.0									
RAIN	80	8.4		6.9	1.5	1.9	8.8	9.6	4.8	5.1	1.3	2.7	5.9	4.9	4.2	5.5		Ž	
RAIN	1.5		4.3	13.8	21.2	18.9	26.3	11.3	12.0	3.1	2.8	1.4	. 7	2.1	2.1			No.	
WIND	z	NNE	N.	ENE	3	ESE	SE	SSE	s	SSW	SW	WSW	*	WNW	WN	MNN	VARIABLE	CALM	

TOTAL NUMBER OF OBSERVATIONS

1,239

798 9.49

210

50.4

163

100

53

% TOTAL

TOTAL

NAVWEASERVCOM

FREEZING RAIN FREEZING DRIZZLE

DRIZZLE

SHOWERS

RAIN

WIND

2 4 2 4 2

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ENE

W

8 0 9

MNN

z

NE

3.2

W -1 80

SSE

2.0

ESE

SE

7.7

SSW

S

PERCENTAGE FREQUENCY OF WIND DIRECTION VS. WEATHER CONDITIONS

MONTH JAN 1973-DEC 1977 WILLOW GROVE, PENNSYLVANIA 14793 STATION

CONE

ALL

HOURS (L.S.T.)

																		_		
NO WEATHER	75.0	64.0	41.7	40.0	37.5	37.5	46.3	38.7	47.0	40.7	56.1	42.0	55.3	37.0	57.1	76.3			602	2005
BLOWING SAND AND DUST																		\langle		
BLOWING																		\langle		
SMOKE	13.6	2000	33.3		2067	23.0	24.4	29.0	33.3	41.6	33.4	45.5	34.0	3100	93.9	13.3	* 04		378	31.5
ICE FOG GROUND FOG	2.3		9.2	0.0	80	9.0	6.4	6.0	9.5	4.5	3.7	9.1	1:1	7.0	3.0	1.7	1		81	0.0
F0G	9.9	16.0	45.0	25.0	31.3	40.0	22.0	33.9	7965	11.0	1.9	7007	7.6	11.0	100	3.4		*/	139	15.0
THUNDER							5.6	7.0	6.2	5.5	7.2	2.1	7.2			3.4			23	1.9
HAIL SMALL HAIL																		\langle		
SNOW GRAINS PELLETS SHOWERS																		\langle		
5																	1			
SLEET " SHOWER! ICE CRYSTALS																	1	\setminus		

TOTAL NUMBER OF OBSERVATIONS

2

000

40

% TOTAL TOTAL

X

X

7

CALM

VARIABLE

*NZ

.

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WSW

3

SW

2 - 2 0 0 4

3.6

WNW

₹ Z

1,200

JAN 1973-DEC 1977 WILLOW GROVE, PENNSYLVANIA 14793

ALL	HOURS ILIST.
206	MONTH
77	

NON	72.5	75.0	54.5	23.5	34.5	1.13	32.4	43.9	40.7	39.1	37.7	33.9	46.3	40.8	64.5	75.3			589	47.5
SAND SAND AND DUST																		M		
BLOWING																		\bigvee		
SMOKE	23.1	25.0	27.3	35.3	44.8	4.89	45.9	39.0	55.5	24.0	54.5	57.1	40.3	53.1	0 6 6 7	161			526	45.4
GROUND FOG	1:1	4 . 2	9.1	11.8		5.3		5.4	6.8	4.6	6.9	6	6.7	3.1	4.3	3.4			18	6.9
50	9.9	2.4	13.0	47.1	24.1	15.8	27.0	14.6	5.1	0 .	5.2	6.9	4.3	7 . 6	6.3	3.4		X	123	6.6
THUNDER								7.3	1.7	1.1	1.3	2.7	1.8		2.2	1.1		X	1.8	1.5
SMALL																		M		
SNOW GRAINS PELLETS SHOWERS																		M		
SLEET S SHOWERS ICE	+-																	M		
RAEZING RAIN FREEZING DRITTE	1																	\bigvee		
DRIZZLE			4.3				2.7									1.1		\bigvee	10	.2
RAIN	2.2	4.2		5.9	3.4	5.3	5.4	17.1		5.7	5.6	5.4	3.0		5.4	2.2		X Z	;	3.5
NAN	1.1		4.5	5.9	3.4		2.7	2.4			1.3							X	0	
WIND	z	NNE	N.	ENE	E E	ESE	SE	SSE	s	SSW	SW	WSW	*	NN.	N.	MNN	VARIABLE	CALM	TOTAL	% TOTAL

TOTAL NUMBER OF OBSERVATIONS

1,240

5

NAVWEASERVCOM

14793	WILLOW GROVE, PENNSYLVANIA	JAN 1973-DEC 1977	AUGUST A	ALL
STATION	STATION NAME	1	X TX OX	HOURS (L.S.T.)

NO WEATHER	68.3	45.7	51.6	36.6	30.5	38.1	38.5	30.6	24.0	1962	2001	13.0	27.0	36.5	57.5	10.0		N N	475	3803
SAND SAND AND DUST																		M		
BLOWING																		M		
SMOKE	59.62	37.1	19.4	39.0	45.4	32.4	6.97	41.	28.0	29.5	32.3	6001	8.10	30.4	6.76	29.0		*	562	43.3
GROUND POG POG	1.6	3.1	3.5	14.1	11.9		3.0	2.6	4.0	2.7	8.1	2007	9.0	13.7	0.3	5.3			118	6.6
50	6.5	11.4	25.0	54.4	0 . 22	19.0	9000	36.1	24.0	17.0	1097	11:	111	1.1	6.9		•		194	13.0
THUNDER			6.9	5.6	1.1	4.8	11.5		2.0	3.4	6.5	3.6	1.6	1.1				X	52	1.2
HAIL SMALL HAIL																		M		
SNOW GRAINS PELIETS SHOWERS																		M		
SLEET " SHOWERS ICE CRYSTALS																		M		
FREEZING RAIN FREEZING DRIZZLE																		\bigvee		
DRIZZLE		2.0		5.4	1.1				0.4					•				X	*	0.
RAIN		5.7	19.4	4.9	5.8	4.8	15.4	5.5	0.9	0.0	4.7	4.3	1.2	3.4	2.5	2.5			51	4.1
Z Z	1.6	5.7			1.7		3.00	2.0	0.4		1.2			1.1				V	14	1.1
WIND	z	MNN	N.	ENE	w	ESE	SE	SSE	s	SSW	NS.	WSW	*	MNM	WN	NNN	VARIABLE	CALM	TOTAL	TOTAL

TOTAL NUMBER OF OBSERVATIONS

1,240

NAVWEASERVCOM

JAN 1973-DEC 1977 WILLOW GROVE, PENNSYLVANIA 14793

SEPTEMBER

ALL

NO WEATHER	71.7	1.95	53.8	39.5	33.3	41.5	73.3	29.7	28.8	39.7	39.7	29.5	20.4	51.6	14.7	19.0	,	2	609	50.6
SAND SAND AND DUST																		M		
BLOWING																		\bigvee		
SMOKE	15.0	9.8	7.7	14.0	14.5	24.4	6.8	35.1	48.1	46.0	51.7	65.3	40.3	38.7	5112	13.6		2	367	30.6
GR FOG GROUND FOG	3.3	2.4	7.7	6.3	7.2	1.3	4.4	13.5	9.6	6.3	13.8	13.1	7.8	5.4	5.5	2.5		X	106	8.8
5	10.0	19.5	26.9	41.9	40.4	29.3	1101	29.7	78.5	16.3	8.6	14.8	12.4	7.3	3.6	3.7		2	192	16.0
TH C N D E	3.3		3.8		2.9			3.4	1.9				œ.	3.2	1.3			X	15	1.3
HAIL SMALL HAIL																		M		
SNOW GRAINS PRILETS SHOWERS																		M		
SLEET SHOWERS CE CRYSTALS																		M		
FREEZING RAIN FREEZING DRIZZLE																		\bigvee		
DRIZZLE		2.4	7.7	16.3	_					1.6				1.1				X	34	2.8
RAIN	3.3	2.4	3.8	7.0	7.2	9.6		60	7.7	40	1.7	5		4.3	2.5	6.2		X	6,	4.1
N N	60	22.0	19.2	11.6	13	6	2.2			1.6	1.7	3.3	3.1	1.1				X	90	4.7
WIND	z	NNE	NE	ENE	w	ESE	SE	SSE	5	SSW	NS	WSW	*	MNM	NN	MNN	VARIABLE	CALM	TOTAL	\$ TOTAL

TOTAL NUMBER OF OBSERVATIONS

1,200

PERCENTAGE FREQUENCY OF WIND DIRECTION VS. WEATHER CONDITIONS

JAN 1973-DEC 1977 WILLOW GROVE, PENNSYLVANIA 14793

OCTOBER MONTH

ALL

NO WEATHER	77.	67.	34.	47.	41.	20.	30.	39.	34.	55.	689	69	14.	29	80.	•06	*****
BLOWING SAND AND DUST																	
BLOWING																	
SMOKE	10.6	1002	12.7	11.4	2007	30.0	25.0	25.0	30.8	32.6	20.6	1304	1001	1 . 8	11.9	3.1	
ICE FOG GROUND FOG	3.0	4.1	10.9	5.7	4.6	3.3	2.0	1.	1.9	9.3	3.2	10.	2.0	7.4	4.0		
F0G	1 . 9	16.3	36.4	32.9	7.97	13.3	40.0	58.0	34.0	0.4	4.6	11.9	2.0	6.9	2.0	301	
THUNDER							2.0										
HAIL SMALL HAIL																	
SNOW GRAINS PELLETS SHOWERS																	
SLEET SHOWERS ICE CRYSTALS																	
FREEZING RAIN FREEZING DRIZZLE																	
DRIZZLE		4.1	10.9	14.3	4.6	3.3	5.0										
RAIN	4.5	4.1	3.5	1.4	1.5	3.3	15.0	7.1	5.8	2.3	1.6		3.3		4.0	1.9	
RAIN	3.0	6.1	12.7	10.0	13.8	10.0	20.0	10.7	25.0	2.3	3.2	1.5		eo	0.1	1.9	
WIND	z	NNN	NE	ENE	B	ESE	SE	SSE	s	SSW	NS.	WSW	*	*××	¥.Z	MNN	VARIABLE

TOTAL NUMBER OF OBSERVATIONS

1,240

63.8

206

19.0

420

5.1

TOTAL % TOTAL

CALM

To the

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NAVWEASERVCOM

WILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF WIND DIRECTION VS. WEATHER CONDITIONS

JAN 1973-DEC 1977

K.	1
u	
D	1
2.	1
u	Z
~	2
-	

NO	0.06	78.6	50.0	15.6	26.4	32.0	40.9	34.2	59.5	56.6	10.8	64.3	82.2	86.9	91.3	81.1		2.4	833	4.60
SAND SAND OUST																		\bigvee		
BLOWING																		X		
SMOKE	10.0			6.3	1.5	20.0	31.3	31.6	6.5	25.7	19.4	19.0	11.5	4.1	0.4	6.7			1.48	12.3
GROUND FOG					1.9		4.5	2.6	7.1	2.7	1.04	7.1	2.1		•	2.2		X	34	2.00
000		17.9	31.8	75.0	0009	0.44	22.7	42.1	19.0	12.2	6.9	8 . 4	2.1	2.4	0.1	6.7		1	172	14.3
THUND ER												1.2						\bigvee	2	2.
HAIL SMALL HAIL																		M		
SNOW GRAINS PELLETS SHOWERS					1.9				2.4					1.6	120	5.6		\bigvee	10	0
SLEET SHOWERS CRYSTALS																		\bigvee		
FREEZING RAIN FREEZING DRIZZLE																		M	~	~
DRIZZLE		3.6	13.6	34.4	20.3	20.0	4.5	5.3	5.4						2.4			7	*	3.4
SHOWERS		3.6			1.9			5.3		5.4	4.2	2.4	1.0	1.6				M	1.9	1.6
N N		3.6	18.2	34.4	22.6	0.4	4.5	3.3	7.1	4.1		2.4	2.1	1.6	00	6.7		X	36	4.7
WIND	z	M Z	NE	ENE	B	ESE	SE	SSE	s	SSW	MS.	WSW	3	MNM	N.W.	NNN	VARIABLE	CALM	TOTAL	% TOTAL

TOTAL NUMBER OF OBSERVATIONS

1,200

NAVWEASERVCOM

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II

14793 STATION

DECFMBER

ALL

JAN 1973-0EC 1977 WILLOW GROVE, PENNSYLVANIA

NO WEATHER	71.2	65.0	40.5	37.7	44.9	45.9	33.3	48.4	45.3	53.0	13.1	2.90	67.0	84.9	80.0	86.7		X	867	6.69
SAND SAND AND DUST																		\bigvee		
BLOWING														2.1	. 3	2.0		\bigvee	-	9.
SMOKE	5.1	10.0	18.9	14.8	14.3	14.3	14.3	22.6	3005	19.0	17.5	15.7	5 . 3	1 . 4	204	3.1			115	9 . 3
ICE FOG GROUND FOG			2.1	1.6			4.8		1.9	1.8		2.0	1.5	1.4					25	2.0
509	13.6	15.0	37.8	37.7	36.7	45.9	38.1	5 . 6 7	64.5	17.9	5.3	1103	5.3	2.9	1.1	9 . 1			103	16.0
THUNDER																		\bigvee		
HAIL SMALL HAIL																		M		
GRAINS GRAINS PELLETS SHOWERS	13.6	12.5	3.6		2.0			6.5		00	3.5	2	2.5	3.4	3.1	0			4	3.4
SLEET S "SHOWERS ICE CRYSTALS	6.8	2.5													-			M	•	*
FREEZING RAIN FREEZING DRIZZLE					2.0	4.8												M	~	• 2
DRIZZLE			2.7	9.9		6.8	4 .				1.8	1.4	-	•	•	2.0		X	91	1.03
RAIN				4.9	2.0	4.8		6.7	3.8	5.4		1.0						\bigvee	13	1.2
RAIN	9.9	5.0	16.2	26.3	50.4	14.3	42.9	22.6	54.5	14.3	200	1.4		4.1	3.1	1.0		X	9.8	6.1
WIND	z	NNE	NE	ENE	E	ESE	SE	SSE	s	SSW	NS.	WSW	W	WNW	×	MNN	VARIABLE	CALM	TOTAL	% TOTAL

TOTAL NUMBER OF OBSERVATIONS

1,240

ALL	HOURS (L.S.T.)
ALL	MONTH
JAN 1973-DEC 1977	YEARS
PENNSYLVANIA	STATION NAME
WILLOW GROVE, PEN	
14793	STATION

NO	74.6	65.5	20.4	39.9	36.8	38.	46.0	41.8	47.5	54.1	59.3	26.0	10.2	74.7	81.8	83.1			4906	62.1
SAND SAND AND DUST																		\bigvee		
BLOWING		.3												*.		9.		M	17	
SMOKE	11.9	11.9	13.5	16.2	19.7	59.3	9.22	8 62	30.3	31.4	28.7	32.3	50.0	7.91	10.6	4.6		\$ 7	1967	50.4
GROUND FOGUND	1.4	2.3	3.9	2.0	4.8	4.4	3.5	4.3	5.8	3.6	4.5	1.8	3.9	3.5	1.9	1.5		7	669	B . 4
50	6.6	16.0	0.67	38.7	39.0	34.5	56.4	53.5	17.8	10.8	6.4	8.5	9.9	5.6	4.5	* . *		2	2027	13.9
THUNDER	3.		1:1	9.	3.	•	1.4	200	•	1.3	5.	1.04	9.	9.	*.	5.			100	
HAIL																		M		
SNOW GRAINS PELLETS SHOWERS	4.1	3.3	2.5	 	2.2	0.1	sn.		. 3	3.	•	0.		1.1	1.03	1.9		X	182	1.2
SLEET S SHOWERS ICE CRYSTALS	.5		9.	.2			en	.2							7.	1.		X	91	1.
FREEZING RAIN FREEZING ORIZZLE	4	0	æ	1.0	1.0	.2		.2										X	31	2.
DRIZZLE	1.0	2.5	6.2	-	0.6	1		1 -		.5	.2		7.			·		X	259	00
SHOWERS	2.1	2.8	4.5	3.3	4.3	3.2	**	7.3	6.4	4.8	2.8	3.1	2.1	1.6				\ \ \	804	2.8
Z Z	4	7.4	10.4	14.3	14.6	11.2	15.3	10 7	6	3.6	2.0	1.1	1.0	2.2	1.9	1.9		X	673	4.6
WIND	z	NN M	MA	ENE	w	ESE	SE	SSE	8	SSW	SW	WSW	*	WNW	N.V.	NNN	VARIABLE	CALM	TOTAL	% TOTAL

TOTAL NUMBER OF OBSERVATIONS

14,607

NAVWEASERVCOM

PRECIPITATION, SNOWFALL & SNOW DEPTH PART

This portion of the Uniform Summary presents in two sets of tables, the daily amounts and extreme values of the following:

PRECIPITATION

SNOWFALL*

SNOW DEPTH

DERIVED FROM DAILY OBSERVATIONS

DERIVED FROM DAILY OBSERVATIONS

DERIVED FROM DAILY OBSERVATIONS

- The first table for each of the above presents the percentage frequency of various daily amounts, by month and annual, all years combined. The percentage of days with measurable amounts is also computed monthly mean amounts (sum of monthly mean amounts), and the extreme monthly amounts (greatest and least). The latter statistics above are not presented for the snow depth summary since they would have limited use and and annually. Also shown for the precipitation and snowfall tables, are the monthly mean amounts, annual may be misleading.
- The second set of tables for each of the above presents the extreme daily amounts by individual year and month for the entire period of record available. Also provided are the means and standard deviations for each month and annual (all months). The extremes for a month are not printed nor used in computations if one or more observations are missing. ö

NOTE: Snow depth was recorded and punched at various hours during the period available from U. S. operated The periods and hours used in the snow depth summary vary by service and period as follows:

Air Force Stations	From beginning of record thru 1945 Jan 46-May 57 Jun 57-present	ord thru 1945	Snow depth at 0800 LST Snow depth at 1230 GCT Snow depth at 1200 GCT	
U. S. Navy and Weather Bureau Stations	From beginning of record thru Jun 52 Jul 52-May 57 Jun 57-present	ord thru Jun 52	Snow depth at 0030 GCT Snow depth at 1230 GCT Snow depth at 1200 GCT	

^{*} Hail was included in snowfall occurrence in the summary of the day observation prior to Jan 1956,

DAILY AMOUNTS

PERCENTAGE FREQUENCY OF PREC 1P 1741 UN (FROM DAILY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

45=47e 49=57e 66=77

NTS		18AST		.60	1.21	2,16	1.52	1:37	1:16	1.02	1.57	1.41	.47	.31	.31	X
MONTHLY AMOUNTS	(INCHES)	Castarect		5.73	4.59	6.53	8.22	7.50	8.80			7.21	6.73	9.26	7:14	X
MONTH	=	NA		2.90	2.67	14.4	3.65	4.19	3.91	4.1113.84	4.8613.99	3.78	3.24	3.46	3.80	86.4
	NO.	9 0		956	593	589	630	527	009	527	589	630	989	570	928	86.440969
PERCENT	OF DAYS	MEASUR-	AMTS	33,5	31.7	36.0	35.7	39.1	36,5	31,7	30.6	31.1	25.1	32.5	35.7	33.3
	2.51-5.00 5.01-10.00 10.01-20.00 OVER 20.00 OF DAYS	25.5.50.4 OVER 50.4	OVER 120													
	10.01-20.00	25.5.50.4	61.120													
	00.01.10.0	15.5.25.4	49.60						.2							0.
	2.51.5.00	10.5.15.4	37.48								1.2			*		w
	1.01.2.50	6.5-10.4	25.36	1:1	1.2	3.2	2.2	3.2	2.0	2.5	3.1	2.7	3.1	1.6	3.9	2.5
неѕј	1 00.1.18	1.5.6.4	13.24	4.7	6.2	7.0	6.9	7.2	5.3	4.2	5.3	5.1	3.4	6.3	0.6	5.5
AMOUNTS (INCHES)	26. 50	3.5.4.4	7.12	6.8	4.7	7.8	0.7	5.5	6.7	1.0	4.6	5.1	4:4	5.1	. 8	5.7
AMOL	л25	2.5.3.4 3	9.7	7.3	7.3	6.9	9.6	9.1	7:7	7.0	4.2	6.7	4.2	6:7	8.2	6.7
	0190	1.5.24	9	0.1	3.7	3.5	4:4	6.4	9.	3.4	4.2	4.3	2.4	5.6	3.0	4.2
	02.05	0.5.1.4	2	6.5	7.6	5.8	9.6	8.0	7.0	8.6	5.8	5.1	3.4	6.1	8.2	6.7
	5	1.0.1.0	-	1:1	1:0	2.2	1:4	1:1	5.5	1.9	2.2	1.7	1.9		1:4	1:0
	TACE	TAGE	TRACE	15.9	14.5	14.6	11,3	11.6	10.5	11.8	10.9	9.2	12.7	13.0	17.2	12.8
	MONE	NONE	MONE	\$0.5	93.8	40.4	53.0 11.3	6.63	93.0	\$6.5	9.06	59.7	62.1	94.6	47.1	0.46
	PRECIP.	SNOWFALL	SNOW.	NAL	•	MAR	APR	MAY	N	J01	AUG	38	50	NO N	DEC	ANNUAL 54.0 12.8

DAILY AMOUNTS

Q

PERCENTAGE FREQUENCY OF SNOWFALL (FROM DAILY OBSERVATIONS)

WILLDW GROVES PENNSKI VANTA

45-47s 49-57, 66-77

STNO		16461		RACE	RACE	0.		0.	0.	0	.0		0.	0.	RACE	X
MONTHLY AMOUNTS	(INCHES)	1321790		19.9TRACE	14.5TRACE	14.6	6.2	RACE		0.		0.		8.0	29.9TRACE	X
MONT	-	77.57		5.7	4.5	3.5	••	327TRACETRACE	0.	0.	0.	0.	1.	1.1	4.4	19.8
	NO.	9 0		969	537	620	900	5277	570	964	589	900	589	009	558	6782 19.8
PERCENT	DF DAYS	MEASUR-	AMTS	10.3		4.7	1.0						.2	1.3	8.9	2.7
	5.01-10.00 10.01-20.00 OVER 20.00 OF DAYS	OVER 50.4	OVER 120													
	10.01-20.00	25.5-50.4	61.120													
	5.01.10.00	15.5.25.4	49.60	.2												0.
	2.51-5.00	10.5-15.4	37.48													0.
	1.01.2.50	4.5.10.4	25.36		.2	.2								.2	4	
(HES)	51.1.00	4.5.6.4	13.24	4.											.2	.2
AMOUNTS (INCHES)	26.50	3.5.4.4	7.12	•		•										.2
AMO	.1125	2.5.3.4	9.4	1.2			.3						2			.3
	0190	1.5.2.4	•	1.8	1:1	1:1							2.		1.4	
	.02.05	1.1.2.0	2	4.2	0.6	1.0	.2								2.0	6.
	6	1.0.1.0	-	1.8	1.9										.7	
	TACE	TRACE	TRACE	17.9	16.0	12.1	3.0	4.						8.0	17.6	6.3
	NON	NON	NON	71.8 17.9	75.2 16.0	83.2 12.1	0.96	9.66	100.0	100.0	100.0	100.0	2.66	40.1	76.5	91.0
	PRECIP.	SNOWFALL	SNOW.	NAL	2	MAR	APR	MAY	NOT	101	T ONV	Ser 1	50	NO N	DEC	ANNUAL

NAVWEASERVCOM

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STROR

DAILY AMOUNTS

PERCENTAGE FREQUENCY OF SNOW DEPTH (FROM DAILY OBSERVATIONS)

WILLOW GROVES PENNSYLVANIA

· 80 •

51-624 65-77

VEADS

						AMO	AMOUNTS (INCHES)	CHES						PERCENT		MOM	MONTHLY AMOUNTS	UNTS
PRECIP.	NONE	TRACE	5	.0205	0190.	.1125	26.50	.51.1.00	1.01.2.50	2.51-5.00	\$.01.10.00	10.01.20.00	2.51-5.00 5.01-10.00 10.01-20.00 OVER 20.00 OF DAYS	OF DAYS	NO		(INCHES)	
SNOWFALL	NON	TRACE	0.1.0.4	0.5-1.4	1.5.2.4	2.5.3.4	3.5.4.4	4.5.6.4	6.5.10.4	10.5-15.4	15.5.25.4	25.5.50.4	OVER 50.4	MEASUR-	9 0 80	74 97		
SNOW.	NON	TRACE	-	2	-	4.6	7.12	13.24	25.36	37.48	49.60	61.120	OVER 120	AMTS				
NAL	55.5	16.3	*	5.5	5.6	4.	3.7	.2						2802	620			
2	40.7	12.3	7:1	6.2	4.0	9.4	3.2	1.0						27.0	593			
MAR	84.2	5.4	4:1	1.7	1.2	1.9	1.0	15.						10.4	989			
APR	98.5		.2	• 2	.2	.2									540			
MAY	100.0														620			
N N	100.0														940			
101	100.0														558			
AUG	100.0														620			
as se	100.0														970			
50	7.66	.2	.2											•2	620			
Ž	6.96	2.0	.2	.2										101	940			
DEC	47.6	7.8	4.5	1.9	1.5	3.4	1.9							13.7	950			
ANNUAL	\$9.4	3.0	1.8	1.3	1.0	1.7		.2						6.8	7030		X	X

3

PRECIPITATION

FROM DAILY OBSERVATIONS

45-57. 66-77

WILLOW GROVE, PENNSYLVANIA

14793 STATION

YEARS

24 HOUR AMOUNTS IN INCHES

MAR. APR. MAY JUN. JUL. AUG. SEP. OCT. NOV.	1.24
1.66 1.20 1.35 1.69 1.37 1.87 1.87 1.66 1.10 1.20 1.20 1.20 1.20 1.20 1.20 1.20	4.14
1.68 1.97 2.78 1.37 1.87 1.68 1.10 1.10 1.22 1.35 1.48 2.46 4.16 .93 .89 .59 1.02 1.22 1.48 2.46 4.16 .95 1.04 1.22 1.40 1.28 1.96 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09	
1.68 1.97 2.78 1.37 1.87 1.87 1.08 1.10 2.04 2.48 4.10 .93 .89 .59 .59 2.39 2.39 2.39 2.39 2.39 2.39 2.39 2.3	
66 1.68 1.97 2.78 1.37 1.87 1.67 1.06 1.10 1.10 2.20 1.35 1.68 2.48 4.16 1.96 1.04 1.22 1.35 1.48 2.48 4.16 1.96 1.04 1.28 1.28 1.96 1.75 1.80 1.62 1.99 1.74 1.28 1.98 1.28 1.98 1.28 1.98 1.28 1.98 1.28 1.99 1.91 1.33 1.12 1.14 1.27 1.41 1.87 1.85 1.99 1.93 1.12 1.14 1.27 1.41 1.27 1.41 1.27 1.41 1.27 1.41 1.27 1.41 1.27 1.41 1.27 1.41 1.27 1.41 1.27 1.41 1.27 1.41 1.24 1.33 1.12 1.14 1.27 1.41 1.24 1.34 1.34 1.34 1.34 1.34 1.34 1.34 1.3	
66 1.68 1.97 2.78 1.37 1.87 1 1 1.00 1.10 2.20 2.20 89 .59 2.04 2.46 4.10 .93 .89 .59 2.39 2.39 2.39 2.39 2.39 1.68 2.46 4.10 .92 2.39 1.04 2.39 2.39 1.68 2.39 2.39 1.68 2.39 1.09 1.09 1.05 1.06 2.25 1.39 1.74 2.49 1.53 1.12 1.14 1.27 1.41 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
66 1.68 1.97 2.78 1.37 1.67 1.11 1.02 2.20 2.46 4.16 .99 .59 .20 00 2.04 .72 1.35 .46 2.46 4.16 .96 1.04 2.3	
66 1.22 1.35 48 2.46 4.16 .95 1.87 1.87 1.87 1.87 1.10 1.02 1.22 4.0 1.28 1.96 4.16 .96 1.04 1.22 1.39 1.09 1.09 1.05 1.25 1.39 1.74 1.26 1.11 1.09 1.03 1.06 2.25 1.39 1.74 1.28 1.86 1.25 1.00 1.80 1.85 1.58 1.12 2.58 1.11 1.25 1.01 1.85 1.12 1.14 1.27 1.41 1.25 1.41 1.41 1.27 1.41 1.41 1.41 1.41 1.41 1.41 1.41 1.4	+
66 1.22 1.02 1.97 2.78 1.37 1.87 1.66 1.10 1.10 1.22 1.35 1.48 2.46 4.16 96 1.04 1.05 1.05 1.68 1.25 1.39 1.74 1.28 1.38 1.28 1.09 1.03 1.06 2.25 1.39 1.74 1.28 1.86 1.25 1.01 1.85 3.69 1.12 2.58 1.01 1.53 1.12 1.14 1.27 1.41 1.	-
66 1.22 1.02 1.97 2.78 1.37 1.87 1.60 1.10 1.10 1.02 1.35 1.46 2.46 4.16 .93 .89 .59 1.04 1.22 .40 1.28 .96 .75 1.80 .62 1.04 1.28 1.99 1.09 1.09 1.06 2.25 1.39 1.74 1.29 1.98 .75 1.60 2.25 1.00 .80	
66 1.22 .40 1.28 1.95 1.80 .62 2.25 1.39 1.74 1.74 1.75 1.86 1.74 1.75 1.87 1.87 1.87 1.87 1.87 1.87 1.87 1.87	
66 1.22 .40 1.28 .96 .75 1.80 .52 2	
66 1.68 1.97 2.78 1.37 1.87 1 1.10 1.02 1.35 .48 2.48 4.16 .96 1.04	
1,68 1,97 2,78 1,37 1,87 1,1	-
1,68 1,97 2,78 1,37 1,87 1,1	
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NAVWEASERVCOM

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PRECIPITATION

WILLOW GROVE, PENNSYLVANIA

45-570 66-77

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2533 Extreme Volues Jon 1969

24 HOUR AMDUNTS IN INCHES

MONTHS		3.02
DEC.	92.1	1 1 1 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4
NOV		1.23
OCT.	1.09	1041
SEP.	1. 40	84.0
AUG.	2.07	2.02
JUL.	65.	1.59
JON.	26.	1.185
MAY	65	11.16
APR.	6.	1019
MAR.	1.65	20 cm
FB.		0.00 to 0.00 t
JAN.	7:33	6.00
YEAR		MEAN S. D.

PRECIPITATION

45-57, 66-77

WILLOW GROVE, PENNSYLVANIA

14793 STATION

YEARS

/BASED ON LESS THAN FULL MONTHS/

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NAVWEASERVCOM

PRECIPITATION

FROM DAILY OBSERVATIONS

45-570 66-77

14793 STATION

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NO

/BASED ON LESS THAN FULL MONTHS/ WILLOW GROVE, PENNSYLVANIA

YEAR JAN.	99	89	20							MEAN	S. D.
ż	0										
5	0										
MAR.	0										
APR.	c										
MAY	0										
N.	0										
JUL.	0		1,58								
AUG.	0										
SEP.											
OCT.											
NOV.		562									
DEC.											
MONTHS	PRECIP	PRECIP	PRECIP								

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NAVWEASERVCOM

SNOW FALL

45-57, 66-77

WILLOW GROVE, PENNSYLVANIA

24 HOUR AMOUNTS IN INCHES

ALL							4.5		0.8	5.7									5.3		7.7		15.8	0.9	3.0	2.0	0.9	5.2			
DEC.				1.0		7.	TRACE	TRACE	2.0	00								11.6	£.4	3.0	7.7	1.0	TRACE	TRACE	0.6	2.0	1.7	5.2			
NOV	0.		TRACE	.2		- 1	4.5	-											5.3		.2	TRACE	TRACE		-	-		-			
OCT.			0	0	-	-	-	and the same	0.	0.								0.	0.	•	•	0.	0		0			0.			
SEP.	0.			0.	0	-	•	0	0.	0								•	•	•	•	0	0	0	0.	0.	•	0			
AUG.	0.		0	0	0.		0.	0	0.	0.									0	•	0.	0.	0.	•	0	0	•	0			
JUI.	0.				0.		0.	0	0.	0.									0	•	•		0.	•	0	0.	0.	0.			
JON.	00			0	0.		0.	0.	0.	0.									0.	0	0.	0	0.	0	0	0	0.	0			
MAY				0	0.		TRACE	0.	0.	0.									0.	0.	0.	0.	0	•	0.	0.	0.	0			
APR.	0.	0		TRACE	0.	TRACE	-	FRACE	0.	3.1									TRACE	0.	0.	TRACE	1.5	2	TRACE	TRACE	TRACE	TRACE			
MAR.	0			1.4	TRACE	-	-		-	5.7	2.0												4.5	ACE	RACE	-		-			
Ę	::				1.0	TRACE	FRACE	. 7	3.7	1.2									3.7				1.0	0		0		2.0			
JAN.					9.		.3		1.1	3.3	1.6								TRACE	2.5	2.2	5.2		2.0	TRACE		•	2.5			
YEAR	64	F 4 4	64	90	51	52	53	34	55	56	57.	58	20	09	61	29	9	99	67	68	69	20	7.1	72	73	7.4	75	76	MEAN	S. D.	TOTAL OBS.

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SNOWFALL

FROM DAILY OBSERVATIONS

45-57, 66-77

WILLOW GROVE, PENNSYLVANIA

14793

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24 HOUR AMOUNTS IN INCHES

3.268 0.4 MONTHS .10 1.01 2.48 .436 2.248 3.078 589 600 558 DEC. TRACE NON TRACE 00 0 0000 SEP 000. AUG. 0000 965 0 Į, \$70 0 S .25 TRACE 527 TRACE MAY TRACE 900 APR. 4 3.17 2.50 1.96 3.793 2.301 2.158 496 537 620 MAR FE 0.4 IAN MONTH TOTAL OBS. MEAN 5.0 A F

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SNOW FALL

45-57, 66-77

WILLOW GROVE, PENNSYLVANIA

YEARS

/BASED ON LESS THAN FULL MONTHS/

WEAR	JAN.	5	MAR.	APR.	MAY	ž	JG.	AUG.	SEP.	OCT.	NOV.	DEC.	MONTHS
45		2.5	0.08		30.0					30.0		9.0	SNOFALL
9.	28.5			c	0		26.0	0	29.0	0	c	-	SNOFALL
4.1	2.0	0.4	2.0		o	0	۰.,	0	0	0	280		SNUFALL
8	6.8	6.0	2.0	0	0	0	0	0	۰.	0	0	TRACE	SNOFALL
64	4.0	5.0	2.5	2.0	250	13.0	0.41		29.0			30	SNOFALL DAYS
90	TRACE	2.0					30.0						SNUFALL
15										0		30	SNOFALL
25	30.5				0	20.0	0	0					BNOFALL
54	9.0												SNOFALL
57				0	0	0	0	۰.,	0	0	0	0	SNUFALL
50	0	0	o	0	0	o	0	٥	c	c	c	0	SNOFALL DAYS
53	0	0	0	0	0	0	0	0	0	0	0	O	SNOFALL
09	0	0	0	0	0	0	0	0	0	0	C	0	SNOFALL DAYS
19	0	0	0	0	0	0	0	0	0	0	c	0	SNOFALL DAYS
29	o	a	a										SNOFALL
MEAN													
S. D.									1				
TOTAL OBS.													

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SNOWFALL

FROM DAILY OBSERVATIONS

45-57, 66-77

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ZA HOUR AMOUNTS IN INCHES /BASED ON LESS THAN FULL MONTHS/ WILLOW GROVES PENNSYLVANIA

JUL. AUG. SEP. OCT. NOV. DEC. MONTHS	O O O O O O DAYS	SNOFALL	5.0	SNOFALL DAYS								
JUN. JUN	0	0										
MAY	0	0										
APR.	0	0							-			
MAR.	0	0										
	0	0										
JAN.	0	0										
YEAR	6.5	99	89	10							MEAN	

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EXTREME VALUES

FROM DALLY OBSERVATIONS

47-62, 65-77

WILLOW GROVE, PENNSYLVANIA

DAILY SNOW DEPTH IN INCHES

YEAR	JAN.		MAR.	APR.	MAY	Š.	JU.	AUG.	SEP.	OCT.	NOV.	DEC.	MONTHS
45													
13						1							
9													
64													
50													
31	0				0	0	0	0			0		
52		0											
53	*	TRACE		0	0	0		0	0	0	9	0	
34	10	-	-	TRACE	0	O	0	0	0	0	0	TRACE	97
55	1	•	-	0	0	0	0	0	0	0	•	-	•
36	•	-	13	•	0	0	0	0	0	0	TRACE	TRACE	13
57	2	5	2		0					TRACE		~	
56	•				•				•		00	:	
00	1		13	•	>	1	0	2	0	0		**	
100	2	9 9	7	5	•		0	0	>	•		•	
6.9		-	*	2		0	0	0	0	0		0	
99	0	11	0	0	0	0	0	0	0	0	0	20	20
67	7	11	\$	TRACE	0	0	0	0	0	0	0	\$	11
68	9	TRACE	2	0	0	0	0	0	0	0		•	
69	2	9	12	0	0	0	0	0	0	0	0	10	12
70	11	3	3	0	0	0		0	0	0	0	-	
7.1	14	TRACE		2	0	0	0	0	0	0	0	TRACE	11
72	*	9	TRAC	TRACE	0	0	0	0	0	-	0	TRACE	•
73	TRACE	0		0	0	0	0	0	0	0	0	'n	2
74	*	-	TRAC	TRACE	0	0	0	0	0	0	0	0	~
75		9	TRAC	0	0	0	0	0	0	0	0	2	9
76	3	2		0	0	0	0	0	0	0	TRACE	9	•
MEAN													
S. D.													
TOTAL OBS										1			

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SNOW DEPTH

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47-62, 65-77

WILLOW GROVE, PENNSYLVANIA

14793 STATION

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DAILY SNOW DEPTH IN INCHES

MONTHS	8							4.6	4.901	1010
DEC.	-							3.5	4.908	029
NO.	TRACE							4.	0.40	240
OCT.	0							-	422.	020
SEP.	0							0.	000	270
AUG.	0							0	000.	020
JUL.	0							0.	000	558
J.	0							0.	0000	940
MAY	0							0	0000	950
APR.	0							.5	1.200	240
MAR.	0							3.4	4.450	586
FB.	•							4.3	4.892	263
JAN.	80							4.8	3.919	029
YEAR	44							MEAN	S. D.	TOTAL OBS.

SNOW DEPTH

45,

47-62, 65-77

JEASED ON LESS THAN FULL MONTHS/ WILLOW GROVE, PENNSYLVANIA

YEAR	JAN.	5	MAR.	APR.	MAY	J.	JG.	AUG.	SEP.	OCT.	NOV	DEC.	MONTHS
45		•	0	•		•		•		•	0_	•	SNO DAS
94				•	0	•							SNO OPTH
4.7	0	0	0	0	0	0	0	0	0	0	0	0	SNG DPTH
	0	0	0	0	0	0	, ,	0	0	0	0		2.0
84					,				0.		•	,	SNO DPTH
1	9	0	0	0	0	c	0	0	-	0	0	0	DAYS
64	•	*	6 4	۰,	۰,	c	c	0,	c	0	c	۰_	DAYS DAYS
50	•	TRACE	-	9	•		,	0	0	0	0	9	SNO OPTH
	0	-	0	E	0	0	0		27	27	27	20	DAYS
16		0	0	0					•	•		•	SNO DPTH
		54		-					0	0		0	
25	۰.		m.	•	•	٥,	c	•	•	•	~ ~	-6	ILAO DNG
6.3	1		-	0	0	9	-	>			•	3	AND DOTE
•			50				30						L/A
57				-		0	0	0	0				SNO DPTH
				28		23	30	30	58		0	0	DAYS
58													SNO DPTH
	0	0	0	0	c	0	c	0	0	0	c		DAYS
65													SNO DPTH
	0	0	0	c	0	0	0	0	0	0		0	DAYS
09													SNO DPTH
		0		0		0							S
10	13					0							SNO DPTH
	53					50					0		DAYS
29			ec										SNO OP
			30										DAVS
MEAN													
S. D.													
10741 000													-

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SNOW DEPTH

FROM DAILY OBSERVATIONS

47-62, 65-77 45, WILLOW GROVE, PENNSYLVANIA

14793 STATION

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/BASED ON LESS THAN FULL MONTHS/

YEAR	JAN.	.	MAR.	APR.	MAY	, NOT	JU.	AUG.	SEP.	OCT.	NON	DEC.	MONTHS
6.0	80 0				o						0		SNO DPTH
89											1 50		SNO DPTH DAYS
04							150						SNO DPTH DAYS
													Ž.
MEAN													
S. D.													
TOTAL OBS.													

NAVWEASERVCOM

PERCARY MONTH

1946-1962 1965-1977

	PRA	PRECIPITATION GREATEST	NO	80	SNOWFALL	
DAY	INCHES	MM	DATE	INCHES	MM	DA
-	0.63	16	1957	6.4	124	19
2		36	1973	3.7	16	19
3	0.85	22	1970	0.2	6	197
4	0.73	19	1952	6.5	165	19
2	0.50	13	1971	1.5	38	61
9	0.88	22	1955	2.0	51	19
7	1.10	28		1.0	25	13
00	0.55	14	1941	0.4	102	61
6	69.0	18		6.7	170	19
10	1.14	53	1970	2.8	7.1	196
=	99.0	17	1955	2.1	53	195
12		15	1975	0.9	152	19
13	1.13	62	1671	4	1	61
14		17	1950	3.2	91	19
15		72	1953	1.0	25	19
16	0.34	6	1952	1.5	38	19
17	0.39	10	1956	1.5	38	196
18	1.03	26	1956	3.7	16	19
19	6.	42	1972	0.9	152	197
20		17	1946		16	19
21	1.00	25	1661	6.0	23	19
22		19	1461		102	61
23	94.0	19	1961	2.9	74	61
24	.1	52	1977	4.0	10	19
25	0.75	19		5.0	127	19
26	0.87	22	1957	•	1	19
27	0.25	9	1971	•	1	61
28		18	1948	5.0	127	19
29	99.0	16	1968	0.2	5	19
30						
31						
			1675			

10

	INCHES	1.5	-		0.0				0.7			0.3					0.3				0.0	1,3		0.0	1,5		0.7	1,3				0
PRE	-	10	80	2	0	Ö	*	2	6	6	32		2	8	-	5	9	3	*	2	09	30	1	6	20	9	2	1	69	-	2	-
PRECIPITATION GREATEST	MM	00	33	80	25	30	11	13	20	52	34	6	8		36	1	6	8	16	11	15	33	21		04	6	18	35	18	200	16	18
N	DATE	1971	1948			1949	1975	1970	1953	1953	-	1954	1948	1948	1968	1947	1954	1952	1975	1973	1975	1946	1952	1997	1953	1975	1952	1976	1952	1973	1956	1981
S &	INCHES	15.8	2.0	0.0	1.3	0.5	3.1		0.2	0.4	2.5	0.0	103	6.4	3.5	1.2	4.0	3.3	•	2.8	5.0	2.5	1.1	1.0	2.6	0.0	4	2.0	2.5	0.5	•	0.4
SNOWFALL	MM	401	31	20	33	3	19	132	6	102	63	152	33	109	89	30	10	98	1	7.1	142	63	28	25	99	15	1	51	63	13	-	102
	DATE	1971	1947	1968	1952	1952	1970	1970	1953		1984	1954	1970	1948	1977	1957	1957	-	1975*	5	1	•	1955	1261	1611	1955	*161	1972	1952	1971	-	1949

· ALSO ON EARLIER YEARS

T – TRACE, AN AMOUNT TOO SMALL TO MEASURE BLANK UNDER SNOWFALL INDICATES NO SNOWFALL FOR PERIOD OF RECORD

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16793 STATION

MILLOW GROVE, PERNSYLWANIA STATION NAME

JANUARY

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NORTH CAROLINA

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NORTH CAROLINA

14793 STATION

WILLOW GROVE, PENNSYLVANIA STATION NAME

MARCH

	and C	PRECIPITATION GREATEST	Z	NS G	SNOWFALL	
_	INCHES	MM	DATE	INCHES	MM	DATE
	1.25	32	1947	3.8	47	195
-	1.25	32	1947	7.1	180	196
-	0.96	77	1954	3.5	68	196
-	1.14	29	1953	2.0	51	197
-	0.79		1961	3.4	98	961
-	1.15	29	1967	1		197
-	2.10	53	1967	2.0	51	196
-	-3	38	1956	4.0	10	195
-	0.85	22	1957	5.1	130	161
-	0.31	3	1949	0.3	2	197
-	2.39	19	1952	•	-	197
-	-	-		1.1	28	196
-	1.18	30	-	-		197
-	1.60	7.4	1947	•		197
-	1.28	33	1953	•	1	197
-	0.93	42	1974	0.4	102	195
-	96.0	25	1972	1.8	94	196
-	0.84	21	1968	3.9	66	195
-	7	55	1975	5.7	145	195
-			1970	4.0	10	161
-	7	58	1974	3.4	86	196
-	2.04	92	1950	2.5		196
-		22	1949	6.0	13	197
+	1.47	37	1969	•	-	197
-		22	1954	•	1	195
-	0.82	21	1973			
-	0.32		1948	-	-	195
+	0.35	0	3			
-	0	27	1970	3.0	16	197
-	2.01	51	1974	•		0
-		11	1974	•	-	197
Monthly	-	17	1060	* **		101

1945-1962 1965-1977

DAILY EXTREME AMOUNTS

APRIL

• ALSO ON EARLIER YEARS T – TRACE, AN AMOUNT TOO SMALL TO MEASURE BLANK UNDER SNOWFALL INDICATES NO SNOWFALL FOR PERIOD OF RECORD

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NORTH CAROLINA WILLOW GROVE, PENNSYLVANIA STATION NAME

1945-1962 1965-1977

DAILY EXTREME AMOUNTS

MONTH

	ALL	M DATE	T 1953								1 1977																					
I	SNOWFALL	INCHES MM																														
MONTH	z	DATE	1976	6461	1972		1948	1956	1961	1953	-	3			3	1972	1946	1948	1953	1950		1969	1975	1956	1661	3				8961	1968	200
	PRECIPITATION GREATEST	MM	38	33	51	22	45	54	34	14	36	28	27	30	32	25	28	21	28	34	12	33	19	35	33	16	13	54	52	6.5	28	26
	PRE	INCHES	1.49		2.01		1.79	0.93		0.57	1,41	1.10	1.05	1.18	1.27	16.0	1.09	0.83	1.09	1.35	0.84	1,28	0.73	1.25	1,28				66.0	1,93	1,12	90
		DAY	1	2	3	4	5	9	7	8	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

• ALSO ON EARLIER YEARS T – TRACE, AN AMOUNT TOO SMALL TO MEASURE BLANK UNDER SNOWFALL INDICATES NO SNOWFALL FOR PERIOD OF RECORD

14793 STATION

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WILLOW GROVE, PENNSYLVANIA

STATION NAME

STATION 14793

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MONTH

NAVAL WEATHER SERVICE DETACHMENT

ASHEVILLE, NORTH CAROLINA

N Common

1945-1962

DATE

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INCHES

DATE 1954

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INCHES

DAY

1967

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SNOWFALL

PRECIPITATION

1965-1977

AUGUST

SNC	00 00 00 00 00 00 00 00 00 00 00 00 00	PRECIPITATION GREATEST MM 75 L 23 L 23 L 24 L 25	PRES 10 10 10 10 10 10 10 10 10 10 10 10 10
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	946	14	
	1976	18	
	9261	02	
	6961	23	
	1950	106	
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INCHES	H	MM	INCHES
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* ALSO ON EARLIER YEARS T ~ TRACE, AN AMOUNT TOO SMALL TO MEASURE BLANK UNDER SNOWFALL INDICATES NO SNOWFALL FOR PERIOD OF RECORD

DIRNAVOCE ANMET - SMOS

WILLOW GROVE, PENNSYLVANIA STATION NAME

NAVAL WEATHER SERVICE DETACHMENT

ASHEVILLE, NORTH CAROLINA

14793 STATION

SEPTEMBER

1945-1962 1965-1977 YEARS

OCTOBER

T	SNOWFALL
MONTH	PRECIPITATION GREATEST

DATE

M

INCHES

DATE

M

DAY

66 1952

2.58 INCHES

1956

0,90

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35 1953

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SNOWFALL

PRECIPITATION GREATEST

PRECIPITATION
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T – TRACE, AN AMOUNT TOO SMALL TO MEASURE BLANK UNDER SNOWFALL INDICATES NO SNOWFALL FOR PERIOD OF RECORD

WILLOW GROVE, PENNSYLVANIA STATION NAME

14793 STATION

0 1911

MONTH

1945-1962

1965-1977 YEARS

DECEMBER

	PRE	PRECIPITATION GREATEST	N.	29.02	SNOWFALL	
DAY	INCHES	MM	DATE	INCHES	MM	DATE
-	0.40	10	1977		1	1975
2		13	-	0.2	5	1952
8	1.53	39	1967	-	1	96
4	1.33	34	1950	-	1	
2	1.08	27	1973*	-	-	1977
9	06.0	23	1972	-	-	1977
7	1,13	58	1950	1.0	25	1441
8	1.08	27	1972	1	1	1975
6	86.0	25	1973	2.0	51	
10	1,41	36	1969	•	-	1974
=	1.13	58	1952	5.4	19	1945
12	1.02	26	1901	-	-	0
13	16.0	23	1966	4.4	112	1966
14		16	1956	0.9	152	95
15	0.80	20	9	0.9	152	76
16	1.89	48	0	3.0	76	16
17		6	0	2.5	63	16
18	1.19	30	16	1,5	38	0
19	0.35	6	1977	5.2	132	16
20	1,30	33	1951	8.5	216	9
21	1.20	30	1977	1.5	38	96
22	1.34	34	1969	1.7	64	1975
23	0.29	7	6561	0.8	20	100
24	0.65	17	6		295	96
25	94.0		9	3.8	46	96
26	1.53	36	16		961	0
27		11	1949	0.8	20	1956
28	0.	28		2.0	15	0
29	3.05	17	9461	1	1	0
30		33	1948	•	1	
31	1	17		4.3	109	
Monthly		77	1946	11.6	0	1966

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1956

SNOWFALL

PRECIPITATION GREATEST

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Monthly

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1950

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1966

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1976*

• ALSO ON EARLIER YEARS T – TRACE, AN AMOUNT TOO SMALL TO MEASURE BLANK UNDER SNOWFALL INDICATES NO SNOWFALL FOR PERIOD OF RECORD

174 174 175

NAVAL WEATHER SERVICE DETACHMENT

ASHEVILLE, NORTH CAROLINA

PART C

SURFACE WINDS

Presented in this part are various tabulations of surface winds as follows:

Extreme Values - Peak Gusts: Derived from daily observations and presented by individual year and month for the entire period of record available. Speeds are presented in knots, while directions are given in 16 A supplementary list of Peak Gusts by year-month with < 90% observations reported is also provided When 90% or more of the daily observations of peak gust wind data are available for a month, the extreme is period. Every month of a year must have valid observations present before the ALL MONTHS value is selected compass points from the beginning of record through 1963, and in tens of degrees starting in January 1964. selected and printed. These values are then used to compute means and standard deviations for the entire for that year. Means and standard deviations are computed when four or more values are present for any

NOTE: According to Circular N specifications, "peak gust data are recorded only at stations with continuous instantaneous wind-speed recorders."

percentage frequency of wind directions to 16 compass points and calm by wind speeds (knots) in increments of Beaufort classifications. Percentages are shown by both direction and speed, and in addition the mean Bivariate percentage frequency tabulations: Derived from 3-hourly observations, these tabulations are a wind speed for each direction. 5

A separate category is provided on the form for variable winds, which are reported in some data sources. In these data where light and variable winds are reported with no directions but with speeds given, the speeds will be summarized in the appropriate groups opposite the column headed VARBL.

- Three tables are prepared for all surface winds included, and for all years combined as follows:
- (1) Annual all hours combined
- 2) By month all hours combined
- (3) By month by standard 3-hour groups
- A separate annual table is also presented for surface winds meeting the following ceiling and visibility conditions: INSTRIMENT CLASS: Ceiling 200 through 1400 feet inclusive with visibility equal to or greater than 1/2 mile, and/or visibility 1/2 through 2-1/2 miles inclusive with ceiling equal to greater than 200 feet. ģ

SURFACE WINDS

45-62, 65-77

WILLUM GROVE, PENNSYLVANIA STATION NAME

DAILY PEAK GUSTS IN KNOTS

S								53						43		40		4 8	40	24	43	20				35	40	45				
MONTHS						3	×	SE	SE					x	322	323		NS	×	x	Z	3				27	90	30				
DEC.	50		30	63	-	29	*	51	35	37	30		04	34	36	35		34	34	30	38	2	30	27	42	32	94	27				1
20	7	24	3	Z	XXX	7	ž	NE	3	3	ZZ		3	SSE	NE	3		ž	3	3	I	X	3	58	26	31	90	56				
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SEP	W Z	3			Z	323	v	3	3	3	Z	E	Z	32	32	Z		S	Z	3	3	2	Z	34	16	-	N	N				
AUG.	9 30			441	3	36		34	4	*					23	19		2	28								8	23				
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JAN	* Z	x	B	XZX	T.	MUN	X	7	X	MA	×	N Z X		N.Z.	S	Z	5		3	3.			37		50			30	27			
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YEAR	4 4	*	*	64	2	3	5	52	20	5	36	3	5	56	9	61	9	0	9	0	0	60	70	7.1	7	73	74	7.5	7.	MEAN	S. D.	TOTAL OBS

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SURFACE WINDS

FROM DAILY OBSERVATIONS

DAILY PEAK GUSTS IN KNOTS 45-62, 65-77

WILLOW GROVE, PENNSYLVANIA

MONTHS		50.3	9945
DEC.		38.3	194
NOV		38.7	861
OCT.		36.0	887
SEP.	A SOE	99.0	625
AUG.		32.0	194
JU.	2836	32.6	168
JGN.			804
MAY	24.29		886
APR.		40.9	800
MAR.		41.4	839
		00	812
JAN.			853
YEAR		MEAN S. D.	TOTAL OBS.

NAVWEASERVCOM

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FROM DAILY OBSERVATIONS SURFACE WINDS

5723 Extreme Values Jap 1969

45-620 65-77 WILLUW GROVES PENNSYLVANTA

14793 STATION

MONTH	JAN.	5	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV	DEC.	MONTHS
54												19	MINDS
46							26			N 25NW	92 MM		MINDS
4.7						2	NW 33						MINDS
œ) •			55W 43			Sw 37*	19						MINDS
64							27 K		17				MINDS
20				NW 43									MINDS
55		NH 36											MINDS
96			14 3					NNE 27					DAYS
57						NSW 34						13 13	PANDS
98	ENE 45												MINDS
0							15						MINDS
1,1						34 1.7		86 38 27					MINDS
7.5				24 200	23 23			92 61					MINDS
16								~ 0	26 20			0	MINDS
11	0	٥	31 458	22									MINDS
MEAN											-		
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WIND SPEED

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SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

73-77

WILLOW GROVE, PENNSYLVANIA

WEATHER CLASS

ALL

YEARS

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2.	9.	9.	9.	1.9	9.	1.3	9.	9.	1.3	4
11 - 16			9.						9.	
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SEED (KNTS)

TOTAL NUMBER OF OBSERVATIONS

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SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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MEAN WIND SPEED

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SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77 WEATHER CLASS ALL

WILLOW GROVE, PENNSYLVANIA

YEARS

0.4 HOURS (1.5.T.)

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SPEED (KNTS) DIR.

TOTAL NUMBER OF OBSERVATIONS

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155

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DIRNAVOCEANMET SMOS

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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14793

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MEAN WIND SPEED

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5702 SURFACE WINDS JAN 78

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77 ALL WEATHER

WILLOW GROVE, PENNSYLVANIA

YEARS

07 HOURS (1.8.T.)

AAN

CONDITION

SPEED (KNTS) DIR.

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2.6 1.3 .6 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6	7.10 11.16 17.2 3 1.3 .6 1.3 .6 5 2.6 .6 5 2.6 .6	7.10 11.16 1.3 .6 1.3 .6 2.6 .6 5.2 1.9	7.10 11.16 17.21 3 1.3 .6 1.3 .6 5 2.6 .6 6 2.6 .6	7.10 11.16 17.21 22.27 3 1.3 .6 .6 .6 .6 .6 .6 .6 .6 .6 .6 .6 .6 .6	7 . 10 11 . 16 17 . 21 22 . 28 . 33 1 . 3 6 1 . 3 6 5 6 6 6 7 . 10 11 . 16 17 . 21 28 . 33 9 6 9 7 9
7.10 11. 1.3 1.3 1.3 5.2 5.2 5.2 5.2 5.2	7.10 11.16 17.2 1.3 .6 1.3 .6 2.6 .6 5.2 1.9	7.10 11.16 17.21 1.3 .6 1.3 .6 2.6 .6	7.10 11.16 17.21 22.27 1.3 .6 1.3 .6 2.6 .6 5.2 1.9 .6	7.10 11.16 17.21 22.27 28.33 1.3 .6 .6 .6 .6 .6 .6 .6 .6 .6 .6 .6 .6 .6	7.10 11.16 17.21 22.27 28.33 34.40 1.3 .6 .6 .6 .2.6 .6 .52 1.3
6 - 1 6 - 1 6 - 1 6 - 1	4.7	17.21	17.21 22.71 0.00	17.21 22.27 28.33	17.21 22.27 28.33 34.40
	n.1	17 . 21	7.21 23.20 6.0	7.21 22.27 28.33	7.21 22.27 28.33 34.40
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TOTAL NUMBER OF OBSERVATIONS

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SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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MEAN WIND SPEED

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SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

ALL WEATHER

73-77

WILLOW GROVE, PENNSYLVANIA

14793

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COMBITION

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TOTAL NUMBER OF OBSERVATIONS

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DIRNAVOCEANMET SMOS

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TOTAL NUMBER OF OBSERVATIONS

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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(FROM HOURLY OBSERVATIONS)

73-77 WILLOW GROVE, PENNSYLVANIA

14793

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ALL WEATHER

13 HOURS (L.S.T.)

AN

YEARS

3.5 4.5 7.0 7.0 8.2 9.8 4.6 7.5 MEAN WIND SPEED 1.9 13525 21.3 5.2 3.2 6.9 100.0 * 12 48 - 55 41 - 47 34 - 40 28 - 33 22 - 27 0. 1.9 2.6 17 - 21 17.4 5.2 1.3 1.3 11 . 16 • 5.2 31.6 1.3 1.3 2.6 1.3 7 . 10 1.9 23223 33.3 4.6 11.6 2.6 .0 1.3 WNW VARBL SPEED (KNTS) DIR. WSW WSW ¥ N. CALM Z Z Z SSW * 2 × 2 . 8

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MEAN WIND SPEED

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SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

20

(FROM HOURLY OBSERVATIONS)

MEATHER

73-77

WILLUM GROVE, PENNSYLVANIA

14793

0

16 HOURS (1.5.T.)

JAN

COMDITION

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41 - 47																	\bigvee	
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11 . 16									1.3	7.9	9.		5.8	1.9	4.5	5.6	X	18.7
7 . 10	9.					1.3	1.3		1.3	1.3	9.		8.4	0.6	1.3	3.2	X	28.4
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155

TOTAL NUMBER OF OBSERVATIONS

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SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

14793

NOURS (L.S.T.)

NON THON

ALL MEATHER

CONDITION

SPEED (KNTS) DIR.

0

25 25

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MEAN WIND SPEED	4.3	0.9	3.5	4.3	7.0	5.0	4.5	7.1	5.0	6.2	5.7	5.8	8.2	8.7	9.5		5.3
×	4.5	1.3	1.3	6.5	1.3	2.6	1.3	4.5	5.8	3.2	8.4	18.1	0.6	6.5	4	17.4	100.0
% Al																X	
48 . 55																X	
0.14																\bigvee	
34 - 40																\bigvee	
28 - 33																\bigvee	
22 · 27													9.		9.	\bigvee	1.3
17 - 21													9.		9.	\bigvee	1.3
11 . 16								1.3		9.		1.3		2.6	1.3	\bigvee	7.1
7 - 10	9.	0.		1.3	9.	9.	9.	•	1.9	9.	2.6	5.5	3.8	1.9	5.6	\bigvee	23.5
:	1.9	9.	9.	1.9	9.	1.9		1.3	5.6	1.3	3.2	1.6	3.9	1.3	5.6	\bigvee	33.5
::	1.9		9.	3.2			9.	1.3	1.3	9.	2.5	1.9	9.	0.	9.	X	16.1

WWW NN

*

VARBL

CALM

1

WSW

0

0

SSW NS.

.

0

3816

155

TOTAL NUMBER OF OBSERVATIONS

TOTAL NUMBER OF OBSERVATIONS

22 HOURS (L.S.T.)

MONTH

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

14793 STATION

DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

YEARS 73-77 HILLOW GROVE, PENNSYLVANIA

CONDITION

0

0

0

0

0

0

ALL WEATHER

	1.3	9:	7.13	11 . 16	17 - 21	22 . 27	28 . 33	34 . 40	41 . 47	48 - 55	% AI	*	MEAN WIND SPEED
+		1.9	1.3	9.								3.9	7.2
-		9.	9.									1.3	7.0
-	0.											1.9	
-	1.3	-										3.2	
-		2.6										2.6	4.5
-	9.	1.3	9.									2.6	5.8
-	9.	1.3										1.9	3.7
-	9.	9.	9.									1.9	5.3
-	1.9		1.3	9.								3.9	6.7
-	1.3	9.	9.									2.6	4.5
-	9.	3.9	1.9									6.9	5.3
-	2.6	1.3	2.6									6.5	5.6
-	9.	6.5	4.5	5.6	9.							14.8	7.7
-	1.3	4.5	3.9	1.9								11.6	7.2
-	1.3	5.6	7.5	1.9								0.6	8.9
-	1.3	3.5	1.3	5.6								8.4	7.4
-													
	X	X	X	X	\bigvee	17.4							
-	14.8	33.5	21.9	10.3	1.0							100.0	5.5

4.5

2.3

MEAN WIND SPEED

×

12

48 - 55

41 . 47

34 - 40

28 . 33

22 - 27

17 - 21

11 - 16

7 . 10

4.6

1.3

SPEED (KNTS) DIR.

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

14793

WEATHER

ALL

ALL HOURS (LS.T.)

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SSW SW

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WSW

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WWW

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CALM

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0

2.50

1.1

12.2

24.8

33.3

15.1

TOTAL NUMBER OF OBSERVATIONS

1240

5.9

100.0

13.4

SMOS DIRNAVOCEANMET

1

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

SURFACE WINDS

tre

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

NOWING CLETT FEB YEARS 73-77 ALL MEATHER COMPITION WILLOW GROVE, PENNSYLVANIA

NINE 7 2.8 1.4 4.3 ENE 7 2.1 1.4 ENE 7 2.1 2.1 2.1 2.1 ENE 7 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1	SPEED (KNTS) DIR.	1.3	9:4	7 . 10	11 - 16	17 - 21	22 - 27	28 - 33	34 . 46	41.0	48 - 55	% AI	*	MEAN WIND SPEED
1.7 2.1 1.7 2.87 1.4 1.4 2.1 1.5 2.1 1.5 2.1 1.6 2.1 1.6 2.1 1.7 4.3 2.8 1.9 5.0 2.1 1.9 5.0 2.1 1.0 5.0 2.1 1.1 5.0 2.1 1.2 5.0 2.1 1.3 5.0 2.1 1.4 5.5 5.0 2.1 1.5 5.0 2.1 1.6 5.0 2.1 1.7 7.3 3.5 6.4 1.7 9.5 6.4	z			2.8	1								4.3	9.8
1.4 2.1 .7 1.4 .7 1.4 .7 1.4 .7 2.8 2.1 1.4 2.1 1.4 2.1 1.4 2.1 1.4 2.1 1.4 2.1 1.4 2.1 1.4 2.8 2.8 2.8 2.8 2.8 2.1 2.1 2.1 1.7 3.5 2.8 2.8 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1	N.	1.	1.										2.1	9
1.4. 2.87 1.4 1.4. 2.1 1.47 1.5 2.1 1.47 1.6 2.1 2.1 2.8 5.0 2.1 2.1 1.4 6.4 2.1 2.1 1.4 6.4 2.1 2.1 1.5 38.3 17.0 12.87	w Z		2.1										2.1	5.3
1.6 2.1 1.6 2.1 1.6 2.1 1.6 2.1 1.6 2.1 2.8 2.1 2.8 5.0 2.1 1.4 6.4 2.7 4.3 2.8 38.3 17.0 12.8 .7	ENE	1.	2.8	.1	1.4								5.7	6.8
1.4 2.1 .7 2.1 .7 2.1 1.4 2.1 1.4 5.6 2.1 2.8 5.0 2.1 1.4 6.4 2.1 1.5 5.0 2.1 1.7 3.5 6.4 .7 4.3 2.8 6.4		1.	1.	2.1									3.3	6.2
1.6 2.1 1.47 2.8 2.1 1.47 2.8 2.1 2.1 2.9 5.0 2.1 2.1 1.4 6.4 2.1 2.7 4.3 2.8 6.4 2.7 4.3 2.87	353	1.4											3.5	0.4
1.4 2.1 1.4 .7 1.6 2.1 1.4 2.1 2.8 2.1 2.8 2.1 1.4 6.4 2.1 2.8 5.0 2.1 2.8 5.0 2.1 1.4 5.4 5.8 6.4 1.4.2 38.3 17.0 12.8 .7	*												2.1	4.3
1.4 2.1 1.4 .7 1.4 2.1 1.4 2.1 2.8 2.1 2.1 2.8 5.0 2.1 2.1 1.4 6.4 2.1 2.8 5.0 2.1 1.4 5.4 5.8 6.4 2.7 4.3 2.8 6.4 2.1 2.1	SSE													0.4
1.4 2.1 1.47 1.9 1.4 2.1 2.8 2.1 2.8 5.0 2.1 2.8 5.0 2.1 1.4 6.4 2.1 1.4 6.4 2.1 1.4 2.8 2.8 1.4.2 38.3 17.0 12.87	•	1.	2.1	1.									3.5	4.6
1.4 1.4 2.1 2.8 2.1 2.8 5.0 2.1 1.4 6.4 2.1 -7 3.5 6.4 -7 4.3 2.8 6.4 -7 4.3 2.8 6.4 -7 4.3 2.8 6.4	SSW	1.4	2.1	1.4	1.								5.7	0.9
2.8 2.1 .7 2.8 5.0 2.1 .7 1.4 6.4 2.1 .7 .7 3.5 6.47 .7 4.3 2.8	WS.	1.4	1.4	2.1									5.0	5.6
2.8 5.0 2.1 .7 1.4 6.4 5.4 .7 3.5 6.4 .7 4.3 2.84 14.2 38.3 17.0 12.8 .7	WSW		2.8	2.1									5.7	5.6
1.4 6.4 2.1 .7 3.5 6.4 .7 4.3 2.8 6.4 14.2 38.3 17.0 12.8 .7	*	2.8		2.1									10.6	6.1
.7 3.5 6.4 .7 4.3 2.8 6.4 14.2 38.3 17.0 12.8 .7	WWW	1.4			2.1								6.6	
14.2 38.3 17.0 12.8 .7	×	. 7	3.5		4.0								10.6	9.5
14.2 38.3 17.0 12.8 .7	NN	.7	4.3										7.8	5.6
14.2 38.3 17.0 12.8 .7	VARBL													
38.3 17.0 12.8 .7	CALM	\bigvee	\bigvee	X	X	\bigvee	17.0							
		14.2											100.0	5.

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DIRNAVOCEANMET SMOS

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141

TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

0

14793

0

0

SURFACE WINDS JAN 78

SURFACE WINDS

2

PERCENTAGE FREQUENCY OF WIND

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANTA

14793

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FEB

ALL WEATHER

COMDITION

* WIND	6.4 5.7		1.00 6.4																
					-														
28 - 33																			
n · n																			
17 - 21																			
11 . 16	1.	.7									7.				7. 1.4	7. 1.4	7. 7. 2.84 2.88 2.88 2.88 2.88 2.88 2.88 2.8	7. 7. 2.84	7. 1.4
7 - 10	2.1	1.	1.4			2.1	2.1	2.1	2.1	2.1	2.1	2.17.7.7.	2.1.2	2.1.2	1.2 2.1	3.5 1 2 2 1 1 2 2 2 3 3 3 5 3 5 3 5 5 5 5 5 5 5 5 5 5	3.55	2.5.1	2.1.2.2.1.2.2.1.4.1.4.1.4.2.2.3.3.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5
;	1.	2.1	2.1	-	7.7	2.1	2.1	2.1	2.1	2:17	2.1	2.1	2.1	2.1	25.4				
::	2.8	1.		4		2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1. 2.1. 2.1. 2.1. 2.1.	2.1.2	2.1.2	2.1.2	2:1
(KNTS)	z	Z	¥	2	-		1 38 E	- 2 =	- 2 × 3	- 2 - 2 -	- 25 25 25 25 25 25 25 25 25 25 25 25 25	SS	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	ESE	E E E E E E E E E E E E E E E E E E E	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	5 25 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	ESE

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SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

(FROM HOURLY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

14793

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WEATHER

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73-77

07 HOURS (1.5.T.) FEB

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SPEED (KNTS) DIR.		9.	7 - 10	91 - 11	17 - 21	22 - 27	28 - 33	34 . 46	41 . 47	48 - 55	8	*	MEAN WIND SPEED
z	6.	2.1	1.4	7.								5.0	6.3
NNE		7.7	.7									2.1	5.7
w Z	.7		1.4									2.8	5.8
S.		1.4	1.4									3.5	6.2
		2.1	2.0									5.0	7.0
ESE		1.4	.7									2.1	7.0
SE													
355	2.1	1.4										4.3	5.2
8	1.4		1.									2.1	3.7
SSW	2.1	3.5										6.4	6.4
SW	3.5			1.4								5.1	6.5
WSW	1.4											3.5	5.8
*	2.1	3.5	5.7									12.1	6.8
WWW	1.4	4.0	3.5									11.3	5.8
*		5.0	2.8	1.4	.7							6.6	8.3
NNW		2.8	1.4	2.1								4.9	8.4
1													
CALM	\bigvee	\bigvee	X	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	X	\bigvee	17.7	
	16.3	32.6	24.8	7.1	1.6							100.0	5.3

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30

TOTAL NUMBER OF OBSERVATIONS

141

SMOS DIRNAVOCEANMET SURFACE WINDS JAN 78

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793 STATION

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ALL WEATHER

73-77

HOURS CL.S.T.

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	1.3	;	7 . 10	11 . 16	17 - 21	22 - 22	28 - 33	34 . 46	41.4	£8 · 55	% Al	×	WIND
1	1.4		2.8	2.8								7.1	9.4
	. 7	2.1	1.4									6.3	0.9
1		1.4		.7								3.5	7.0
		1.4	1.4									2.8	7.0
	1.4	.7	4									4.9	6.2
	. 7	.7	.7									2.1	5.7
	1.											4.	2.0
1		. 7	1.4									2.00	0.9
)				1.								2.8	10.8
1	1.4	2.1	1.4									5.0	5.6
1	.7	3.5		.7								2.0	5.9
		3.5	1.4	1.4								7.1	8.5
	2.1	1.4	4.6	2.8	.7	.7						14.2	6.3
	. 7	2.1	7.1	3.5								13.5	4.6
		2.8	5.7		. 7							6.6	7.9
	.7	2.1	1.4	4.3								8.5	8.6
V 1	\bigvee	\bigvee	X	X	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	X	\bigvee	6.4	
	12.8	25.5	36.9	17.0	2.8	.,						100.0	7.7

DIRNAVOCEANMET SMOS

101

PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

WILLOW

14793

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E	момти	13	NOURS (L.S.T.)	
	YEARS			
73-77		ALL WEATHER	CLASS	CONDITION
GROVE, PENNSYLVANIA	STATION NAME			

SPEED (KCNTS) DIR.	.:	9.4	7 - 10	91 - 11	17 - 21	22 - 27	28 - 33	34 - 40	41.4	48 - 55	% %	*	MEAN WIND SPEED
z		.7	2.8	1.								4.3	8.5
N.	. 7	1.4	1.4									3.5	6.2
wZ			. 7	. 7								1.4	11.5
ENE		1.4		.7								2.1	6.7
			4.3									5.7	8.5
252 ESE		2.1										2.8	
35													
SSE	1.	2.1			.7							3.5	7.0
8		1.4	1.4	.7	1.4							5,0	10.7
SSW		1.4	2.1	.7								4.3	7.7
SW	.7	1.4	2.1	.7								5.0	7.1
WSW		1.4	1.4									3.5	8.2
*	1.4	4.3	7.1	5.0								18.4	0.6
WWW	.7	2.1	8.5	5.0	2.8							19.1	10.6
*			2.8	2.8								4.9	11.4
MNW		1.4	3.5	5.0								10.6	6.6
VARBL													
CALM	\bigvee	\bigvee	X	X	\bigvee	4.3							
	5.7	22.0	38.3	23.4	4.4							100.0	8.7

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PERCENTAGE FREQUENCY OF WIND

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

14793

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ALL WEATHER

16 HOURS (L.S.T.)

FEB

CONDITION

									The second secon				
SPEED (KNTS) DIR.	1.3	9:	7 - 10	11 . 16	17 - 21	22 - 27	28 . 33	34 . 46	41 - 47	48 - 55	%	*	MEAN WIND SPEED
z		2.1	2.1	.,								5.0	7.7
N.	.7		7.	.7								2.1	7.0
Z	.7		1.4	.7								2.8	7.5
ENE			.7									.,	7.0
		2.1	1.4	1.4								5.0	7.9
ESE		1.4	.7									2.1	6.3
*		. 7										4.	4.0
SSE		.7										4.	0.0
	2.1	2.1	2.1	.7								7.1	6.2
SSW		1.4	5.0	2.1								8.5	9.2
SW	.7	. 7	2.00									4.3	7.3
WSW	.7	.7	2.1									3.5	7.2
*	2.1	7.1	4.3	5.0								18.4	7.9
WWW		1.4	4.0	5.0	.7							13.5	10.4
¥		2.1	4.3	5.0								11.3	10.0
NNN		2.8	2.0	2.1								6.6	8.3
VARBL													
CALM	\bigvee	\bigvee	\bigvee	4.3									
	7.1	25.5	39.0	23.4	.7							100.0	8.0

10

10

TOTAL NUMBER OF OBSERVATIONS

141

SMOS DIRNAVOCEANMET

2.1

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7.0

WIND SPEED

12

48 - 55

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

WILLOW GROVE, PENNSYLVANIA

73-77

19 HOURS (L.S.T.)

FEB

ALL NEATHER

COMBITION

4.14			
34 - 46			
28 . 33			
22 - 27			
17 . 21	.7		
11 . 16	7.	.7	
7 . 10	2.1	.7	

4.6

SPEED (KNTS) DIR.

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				1			
						\bigvee	
						\bigvee	
						\bigvee	
						\bigvee	

1.4 2.1

5.3 3.5

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NNN VARBL

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WSW

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SW SW

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2.8 2.1

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TOTAL NUMBER OF OBSERVATIONS

141

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6.6

24.8

35.5

16.3

CALM

12.1

SMOS DIRNAVOCEANMET

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

MEAN WIND SPEED

. 27 2

17 - 21

11 . 16

7 - 10

4.6

1.3

SPEED (KNTS) DIR.

Z 2 2

z

2.1

3.8

1.4

7.7

7.4

SURFACE WINDS

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

73-77 WEATHER ALL

*ILLOW GROVE, PENNSYLVANIA

14793

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YEARS

22 HOURS (1.5.T.)

FEB

COMBITION

10.6 5.0 5.0 2.1 3.5 1.1 13.5 100.0 * 8 48 - 55 41 - 47 34 - 40 28 - 33

=

5.4 4.3 5.0 6.9

4.2

7.6

10.1

6.2

7 . 4

1.4 5.0

WSW

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7.1 2.8 1.4

2.1

WWW

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VARBL CALM

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3.5

SSW

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2.1 2.1

2.1

4.9

22.0

39.7

16.3

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141

TOTAL NUMBER OF OBSERVATIONS

5,3

SMOS DIRNAVOCEANMET

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

73-77

WILLOW GROVE, PENNSYLVANIA

14793

0

ALL HOURS (L.S.T.)

FEB

COMBITION

ALL WEATHER

0

MEAN WIND SPEED	7.7		6.7			5.4						6.2			8.5				6.9
×	5.2	3.0	2.4	3.3	5.4	2.2	1:1	2.1	4.5	0.9	5.3	5.1	13.9	12.1	9.5	8.2		10.6	100.0
% AI																		\bigvee	
48 - 55																		\bigvee	
41 . 47																		\bigvee	
34 · 40																		\bigvee	
28 · 33																		\bigvee	
22 . 27																		\bigvee	1.
17 . 21	1.							7.	.3			•1	.5	• 5	4.			\bigvee	2.0
11 . 16	1.0	4.	4.	5.	5.			7.	.5	1.	4.	4.	1.9	5.5	5.5	5.4		X	13.7
7 - 10	2.3	6.	1.	1.0	5.9	·n	.1	.3	1.1	1.6	1.5	1.4	4.3	4.5	5.9	2.6		X	28.5
;	1.2	1.2	1.0	1.5	1.5	1.2	.5	1.2	1.5	5.4	1.9	2.5	5.3	3.4	5.6	2.8		X	31.6
	1.	. 5	4.	3.	9.	.5	7.		1.2	1.3	1.0		1.9	1.2	1.2	5.		X	13.6
SPEED (KNTS) DIR.	z	W.	a z	ENE	-	353	35	SSE	•	SSW	×s.	WSW	*	WWW	ž	NNW	VARRL	CALM	

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1128

MEAN WIND SPEED

SURFACE WINDS JAN

SURFACE WINDS

200

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77 ALL WEATHER

YEARS

NOURS (L.S.T.)

MAH

CONDITION

SPEED (KNTS) DIR.

0

Z Z Z

z

*	5.8	1.9	1.9	5.8	7.7	2.6	5.2	5.6	2.6	4.5	4.5	1.9	6.5	9.7	6.4	9.7		17.4	100.0
%																		X	
8 . 55																		X	
4.4																		M	
34 . 45																		X	
28 - 33																		X	
22 - 27															9.			X	9.
17 . 21													9.	9.				X	1.3
11 . 16	1.9	9.								9.				5.5	3.2	3.9		X	15.5
7 - 10	1.3	9.	9.	3.9	3.9	1.3	1.9	9.		1.3	1.3	9.	1.9	1.3		3.9		X	25.8
*	1.9		9.	1.3	1.9	1.3	1.3	1.9	1.9	1.9	2.6	1.3	2.6	1.9	3.2	9.		X	26.5
	9	9	0	0	6	+	6	+	0	0	9	+	6	9	3	3	-	1	6

3

9.1 4.6

DIRNAVOCEANMET SMOS

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155

TOTAL NUMBER OF OBSERVATIONS

VARBL

NNK

ž

0

CALM

0

1

NSW WSW

0

SSW

SSE 22 22

w

WWW

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6.4

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

14793

WILLOW GROVE, PENNSYLVANIA

155

TOTAL NUMBER OF OBSERVATIONS

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

73-77 WILLUM GROVE, PENNSYLVANIA

14793

0

0

0

YEARS ALL WEATHER CONDITION

0.4 HOURS (1.5.T.)

MONTH WONTH

MEAN WIND SPEED	5.2 6.4	3 2.5	6.5 6.8	4.5 7.0		6.5 6.9	6.3	2.6 4.0	1.3 6.0	0.7 %.	1.1 6.6	5.2 4.3	.1 8.6	7.5	12.9 10.0	6.5 9.5		12.3	
*	-	_	•	7		•						5			15	•		7	000
XI XI																		X	
48 - 55																		\bigvee	
41 - 47																		X	
34 . 40																		\bigvee	
28 - 33																		\bigvee	
22 - 27															9.			\bigvee	
17 - 21															9.	9.		X	
91 . 16	9.		9.			9.					1.3		1.9	1.9	3.9	1.9		X	
7 . 10	1.3		5.6	1.9	3.9	3.8	1.3		9.	1.3	1.3	9.	2.6	2.6	3.9	9.		X	-
9:+	2.6		5.6	2.6	4.5	6.1		1.9		9.	9.5	5.6	1.9	1.9	3.2	3.2		X	
÷:	9.	1.3	9.		1.3	9.	9.	9.	9.		1.9	1.9	9.	1.3	9.			X	
SPEED (KNTS) DIR.	z	N N	¥	ENE		ESE	SE	SSE		SSW	NS.	WSW	*	WWW	*	MNN	VARBL	CALM	

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SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

73-77

NOURS (LS.T.)

HAR

CONDITION

ALL WEATHER

17 - 21

. 16

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7 . 10

4.6

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1.3

1.3

Z

ENE

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86672508 6.1 MEAN WIND SPEED 4.5 3.9 9.0 2.6 4.5 12.9 4.5 12.3 4.4 12.3 3.9 100.0 * 12 48 - 55 . 47 7

TOTAL NUMBER OF OBSERVATIONS

9

9

11.6

28.4

32.3

14.2

155

DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

0

14793

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1.9 9.

3.9

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ESE

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1.3

9. 1.3

SSE 3

3.6

3.9

5.5

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WNW

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NN X VARBL CALM

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WSW

SSW

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SW

5702 SURFACE WINDS JAN 78

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

000

WILLOW GROVE, PENNSYLVANIA

14793 STATION

0

73-77

YEARS

10 HOURS (1.5.T.)

MAR

CONDITION

ALL MEATHER

1
1

0

SPEED (KNTS) DIR.	1.3	4.6	7 . 10	11 - 16	17 . 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	95 Al	×	MEAN WIND SPEED
z	1.3	9.		1.9	9.							4.5	9.3
N N		1.9	1.9	9.								4.5	8.9
W Z	9.		1.3		9.							2.6	0.6
ENE		1.3	1.3	9.								3.2	7.4
		5.6	5.8	5.6								11.0	8.8
ESE		2.6	5.8	9.								8.4	8.0
SE		1.3	1.3									2.6	6.3
SSE		1.9	3.2									5.5	7.3
		1.3		9.								1.9	8.7
SSW	9.		1.3									3.2	5.6
WS.	1.3	5.6	9.	1.9								6.5	7.7
WSW	9.	1.9	1.3	9.								4.5	9.9
*		1.9	5.8	1.9	1.3							11.0	10.2
WNW	9.		2.6	3.2	1.3	9.						8.4	13.5
WM		9.	3.9	3.9	2.6							11.0	12.6
NNW	ç.	1.9	1.9	3.2	1.3							0.6	10.2
VARBL													
CALM	\bigvee	\bigvee	X	\bigvee	X	X	X	\bigvee	\bigvee	\bigvee	\bigvee	2.6	
	5.8	23.9	37.4	21.9	7.7	9.						100.0	9.2

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

		CONDITION
HOURS (L.S.T.		CLASS
	× 1	ALL WEATHER
0	YEARS	STATION NAME
MAR	73-77	YLVANIA
	(FROM HOURLY OBSERVATIONS)	

MEAN WIND SPEED	14.0	15.0	10.2	8.3	0.6	8.5	0.8	4.7	6.7	8	8.2	11.0	10.0	12.5	11,3	13.2			9.9
×	1.3	9.	3.2	5.6	8.4	6.5	7.7	1.9	4.5	7.1	3.2	3.9	14.2	11.6	14.2	7.1		1.9	100.0
₹																		\bigvee	
48 - 55																		\bigvee	
41.4																		\bigvee	
34 - 40																		\bigvee	
28 - 33																		\bigvee	
22 - 27	9.												9.	1.3		9.		X	3.2
17 - 21					9.							9.			3.8	1.3		\bigvee	5.8
11 . 16		9.	1.9	9.	1.9	1.3	9.			1.9	••	9.	4.5	5.5	3.2	5.6		X	25.8
7 - 10			9.	1.3	3.5	3.9	4.5	9.	1.9	2.6	1.9	5.6	5.2	4.5	5.5	1.9		X	40.0
4.6	9.		9.	9.	5.6	1.3	3.6	9.	2.0	2.6	9.		3.2	9.	1.9	9.		X	21.3
1.3								9.					9.		9.			\bigvee	1.9
SPEED (KNTS) DIR.	z	NNE	ž	ENE	¥	353	38	358	s	SSW	MS	MSM	*	MNM	MN	MNN	VARBL	CALM	

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5702 SURFACE WINDS JAN 78

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

73-77

MILLOW GROVE, PENNSYLVANIA

14793 STATION

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0

YEARS

ALL MEATHER

16 HOURS (L.S.T.)

MAR

CONDITION

MEAN WIND SPEED	6.0	7.0	3.0	10.4	8.0	8.3	7.5	6.3		7.7	9.6	4.0	10.2	12.7	11.5	13.8			
*	1.3	2.6	1.3	3.2	5.2	9.6	3.9	2.6	4.5	7.57	3.2	4.5	11.6	14.8	14.8	7.7		5.6	000
% %																		\bigvee	
48 - 55																		X	
41 - 47																		\bigvee	
34 - 40																		\bigvee	
26 - 33														9.				X	
11.11													9.	9.		9.		X	
17 - 21				0.										3.6	5.6	1.9		X	
11 . 16	9.	9.		9.	9.	1.9	1.3		1.3		1.3	9.	4.5	3.9	4.5	5.6		X	2
7 . 10		9.		1.3	3.6	5.2	9.	1.9	9.	4.5	9.	1.9	4.5	5.8	. S	1.9		X	100
• •	9.		9.	9.	1.3	1.3	1.3		5.6	3.8	9.	1.9	1.3	1.3	1.3			X	. 0.
::		1.3	9.				9.	9.			9.		9.		9.	9.		X	0 3
SPEED (KNTS) DIR.	z	W.	w Z	ENE		ESE	SE	SSE	s	SSW	SW.	WSW	*	WWW	*	MAN	VARBL	CALM	

155

7.3

1.9

MEAN WIND SPEED

*

12

28 - 33

22 - 27

- 3 17

11 - 16

7 - 10

4 . 6

1.3

SPEED (KNTS) DIR.

13.0

1.3

SURFACE WINDS

2000

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77

MILLOW GROVE, PENNSYLVANIA

YEARS

19 HOURS (LS.T.)

MAR

WEATHER CLASS

CONDITION

. 55 4 41 - 47 34 - 40

1.3

4.5 3.9

1.9 3.2 0

1.3

•

9.

2.6

1.3

9.

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z

0

2 2

9.

5.8 2.5 9.6 1111 6.6 9.1 8.4 13.5 8.4 12.9 100.0

2888

6.9 5.8 5.3

7.7 7.2

1.9

3.2 4.5 8.4 5.2 2.6

TOTAL NUMBER OF OBSERVATIONS

9

15.5

26.5

29.7

12.9

.

1.9

3.5

1.9

1.9

0.0

MNA

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NNA VARBL CALM

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9.

1.3

1.9

9

SSE

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25 32 SE

3.9

1.3

SSW WSW WSW

5.2

1.9

9

155

SMOS DIRNAVOCEANMET

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

73-77 ALL WEATHER

WILLOW GROVE, PENNSYLVANIA

14793

0

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0

0

0

YEARS

22 HOURS (L.S.T.) MAM

CONDITION

SPEED (KNTS) DIR.	1.3	• •	7 . 10	11 . 16	17 . 21	22 - 27	28 · 33	34 - 40	41.4	48 - 55	% AI	*	MEAN WIND SPEED
z		1.3	3.2	1.3								5.8	8.7
NN						9.						9.	22.0
ž	9.	9.	9.	9.								2.6	8.0
ENE	9.	9.	9.	9.								2.6	7.0
	9.	1.9	1.9	9.								5.2	0.9
ESE	9.	3.5	3.9									7.7	6.9
35	9.	1.3	4.5									6.5	7.4
SSE		5.6	1.9									4.5	4.9
	1.3	5.5	9.	9.								7.7	5.2
SSW	9.	9.	••	9.	9.							3.2	0.6
SW		5.2		9.								20.00	6.2
WSW	9.	ç.	0.									1.9	0.9
*	9.	4.5	1.3	9.	9.							7.7	6.3
WNW	9.	5.6	3.9	3.5	1.3							11.6	10.1
×	1.3	9.	2.6	3.2		9.						8.4	10.4
NNN	1.3	1.9	3.9	3.5								10.3	4.8
VARBL													
CALM	\bigvee	X	X	X	X	X	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	1.7	
	9.7	32.9	30.3	15.5	2.6	1.3						100.0	7.2

DIRNAVOCEANMET SMOS

200

155

TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

8.2

MEAN WIND SPEED

8

22 - 27

17 - 21

11 . 16

7 - 10

9.7

1.3

SPEED (KNTS) DIR.

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-• -

04022041

1.3

2.0

.6

7.5

7.5 6.9

MAR

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

WILLOW GROVE, PENNSYLVANIA

14793 STATION

73-77

ALL MEATHER

YEARS

ALL HOURS (LST.)

COMDITION

11.2 6.5 4.6 3300 4 . 8 5.0 3.4 7.8 401 3.1 3.7 8.7 100.0 × 12 . 55 4 . 47 7 4 2 . 1 . 33

8688

4.9 7.2 8.9 9.9

8.5 10.5

10.2

10.7

4. . .2

1.0

2.8

WWW

*

WSW

3

0.

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1.0

2.3

SSW

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200

1.2

1.3

2.1

3.5

TOTAL NUMBER OF OBSERVATIONS

1.2

3.6

17.9

31.9

27.1

9.5

1240

7.7

100

SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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VARBL CALM

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SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

(FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

73-77

WILLOW GROVE, PENNSYLVANIA

14793

0

0

0

YEARS

WEATHER

NOURS (L.S.T.)

APR

CONDITION

KNTS) DIR.	F: -3	4.6	7 . 10	11 - 16	17 - 21	22 - 27	28 · 33	34 · 40	41.4	48 - 55	% AI	*	MEAN WIND SPEED
z	6.	3.3	0.9									10.0	6.7
N N	1.3	1.3	1.3									4.0	5.2
WZ.			. 7									1.3	7.5
ENE			. 7									.,	7.0
		4.7	1.3	1.								6.7	6.2
ESE		4.	. 7									1.3	6.5
SE	7.	1.3	.,	1.								3.3	4.9
SSE													
w	1.3		1.3									3.3	5.4
SSW	1.3	3.3	.7	1.3								6.7	6.3
SW	2.0	1.3	3.3									6.7	5.5
WSW	2.7	2.0										5.3	4.4
*	. 7	4.7	3.3	1.3	. 7							10.7	7.6
WNW	3.3	2.0	2.0	1.3	. 7							6.9	6.9
¥		0.4	2.7	2.0			.7					10.0	9.3
MNN		2.0	1.3		1.3							0.9	9.5
VARBL													
CALM	\bigvee	\bigvee	X	X	X	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	14.7	
	. 3.	000	1,70	0			7					0	u

TOTAL NUMBER OF OBSERVATIONS

SMOS DIRNAVOCEANMET

150

TOTAL NUMBER OF OBSERVATIONS

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

73-77

04 HOURS (L.S.T.)

APR

CONDITION

ALL WEATHER

NEAN % WIND SPEED	4.7 7.4		8.9 6.4		5.3 5	4.0	.7 5	1.3 7	2.0 7	7.3 5	5.3 3	9 0.8	16.0 5.0	5.3 7	9.3 8.4	8.0		1.6.7	
7 48 · 55																			
34 - 40 41 - 47																		X	
27 28 . 33															.7				
17 . 21 22 . 27																4.		X	
11 . 16	1.3		.7			.7		.7		7.			.7	.7	1.3	.7		X	
7 - 10	7. 7	7 1.3	7 .7	7 .7	0.2.0	7 2.0	7	7	7 1.3	7 2.7	7	0.4	2.0	2.7	2.7	3 2.7		\setminus	
• •	2.7	7	2.7	•	3 2.0		•	•	•	3 2.7	7 2.	3 2.0	3 10.0	0	7 4.0	7 3.3		$\langle \rangle$	
		•			1.3	•				1.	2.7	1.3	3,3	2.0	•	•		X	
SPEED (KNTS) DIR.	z	N.	N.	E	-	ESE	35	SSE	s	SSW	SW	WSW	*	WWW	W	NNN	VARBL	CALM	

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

SURFACE WINDS JAN 78

SURFACE WINDS

E

PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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WILLOW GROVE, PENNSYLVANIA

73-77

14793

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YEARS

NOURS (L.S.T.)

APR HONTH

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ALL WEATHER

SPEED (KNTS) DIR.	1.3	\$:\$	7 . 10	11 - 16	17 . 21	22 · 27	28 - 33	34 · 40	41 - 47	48 - 55	% AI	×	MEAN WIND SPEED
2	4.	3.3	1.									4.7	4.4
NN	7.	1.3	1.3									0.4	7.7
W.Z			1.									1.	0.8
ENE		. 7	1.3									2.0	7.7
	2.7	2.0	4.0									8.7	5.8
ESE		1.	1.3									2.0	7.7
35	1.											1.3	4.5
SSE		4.											5.0
8	.7	1.		1.								2.0	7.7
WSS		2.0	.,	1.								3.3	7.2
3	4.	1.	3.3									4.7	7.1
WSW	2.7	4.0	1.	.7								8.0	4.8
3	3.3		4.0	1.3								15.3	6.2
WWW	1.3			1.3								8.0	7.1
3	2.7	4.0		4.7								17.3	8.2
NNN	.,	2.7	4.	2.0	.7							6.1	8.6
VARBL													
CALM	X	X	X	X	X	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	10.7	
	16.7	32.0	27.3	12.0	1.3							100.0	6.1

1880

SMOS DIRNAVOCEANMET

BUCK

150

TOTAL NUMBER OF OBSERVATIONS

(3)

0

1

8.9

100.0

1.3

26.7

35.3

26.0

4.0

SSW

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WSW

*

SK

WWW N N VARBL CALM

2.0

2.7

501

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

200

SURFACE WINDS

73-77 HILLOW GROVE, PENNSYLVANIA

ALL WEATHER

YEARS

10 HOURS (L.S.T.)

APR MONTH

CONDITION

	8.3	8.4	6.3	7.6	0	0	0.6	3	8	-	6.6	6.7	8.8	æ	-	3
MEAN WIND SPEED	80	8	0	4	6.9	0.0	6	6.3	8.9	10.7	0	9	80	10.8	=	=
×	6.7	4.7	2.0	4.7	6.7	3.3	1.3	2.0	2.7	2.0	5.3	0.4	15.3	10.7	16.0	10.0
% AI																
48 - 55																
41.4																
34 - 40																
28 - 33																
22 - 27														.7	1.3	.7
17 - 21													1.	1.		
11 - 16	2.0	2.0		1.3	1.		1.		1.	1.	1.3		3.3	2.0	7.3	4.7
01 -	2.7	.7	. 7	.7	2.0	1.3		1.3	. 7	. 7	3.3		6.7	6.7	0.4	2.7

4.0

25 22 25 25 SSE

1.3

SPEED (KNTS) DIR.

Z ¥ ENE TOTAL NUMBER OF OBSERVATIONS

150

DIRNAVOCEANMET SMOS

14793

MEAN WIND SPEED

28 . 33

. 27 22

17 - 21

11 - 16

7 - 10

4 . 6

1 - 3

(KNTS)

X X X

z

2.0

SURFACE WINDS JAN 78

6.5

SURFACE WINDS

Ē

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

20

(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

14793

0

0

YEARS ALL WEATHER COMDITION

13 HOURS (1.5.T.)

APR

2.0 3.3 13.3 2.7 6.3 2.1 16.7 100.0 2.7 12 48 - 55 41 - 47 4 8

10.01

..

7.3

2.0 6.3

12000

*NA

*

*XX VARBL CALM

ž

1.3

1.3

WSW

0

SK

SSW

*

0

1.3

2.7.7.3

...

1.3

55 SSE

0

2.0 . .

11.5 11.6

9.3

288

150

TOTAL NUMBER OF OBSERVATIONS

4.7

31.3

37.3

18.0

5.3

4.6

B

SURFACE WINDS JAN

SURFACE WINDS

200

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77 WILLOW GROVE, PENNSYLVANIA

ALL WEATHER

YEARS

16 HOURS (L.S.T.)

A P R

CONDITION

SPEED (KNTS) DIR.	÷:	• • •	7 . 10	11 - 16	17 - 21	22 . 27	28 - 33	34 - 40	41 . 47	48 · 55	% Al	*	MEAN WIND SPEED
z	1.3	.7	2.0	3.3								7.3	9.6
NNE			2.0									2.0	6
¥			1.									.7	8
ENE			.7	1.3								2.0	11,
R		1.3	2.7	.7								4.7	8
ESE			2.0									2.0	7.
35			1.3									1.3	10.
SSE		.7	1.3	1.3								0.4	7.8
5		1.3	1.3									2.7	•
SSW	.7	2.0	2.0	1.3	.7							6.7	8.5
SW	.7	2.0	1.3	2.0								0.0	8
WSW		2.7	4.7	1.3								8.7	7.
*		2.7	5.3	3.3								11.3	6
WWW	.7	.,	4.7	4.7	.7	.7						12.0	11:
MM		1.3	3.3	5.3	1.	.7						11.3	111.
NNW		1.3	4.7	6.7	.7	.7						14.0	12.
VARBL													
CALM	X	X	X	X	X	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	3.3	
	0 7	16 7	100	21. 2									

888

TOTAL NUMBER OF OBSERVATIONS

150

DIRNAVOCEANMET SMOS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

8.8 0.9

MEAN WIND SPEED

0.9

7.5

7.8

888

4 8 4

5.5

5.7

7.7 10.0

19 HOURS (L.S.T.) APR

E

SURFACE WINDS

YEARS

73-77

PERCENTAGE FREQUENCY OF WIND

(FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

WILLOW GROVE, PENNSYLVANIA

WEATHER CLASS

ALL

CONDITION

×	7.3	3.3	1.3	.7	4.0	2.7	5.3	2.0	4.7	8.7	8.0	6.7	10.7	7.3	14.0	6.7		6.7	
% AI																		X	
48 - 55			×															\bigvee	
41 - 47																		\bigvee	
34 - 40																		\bigvee	
28 - 33																		\bigvee	
22 - 27														.,				\bigvee	
17 - 21														.1				\bigvee	
11 - 16	2.0						1.3	1.		1.3		. 7	1.3	.7	2.7	3.3		\bigvee	
7 - 10	3.3	. 7			2.3	2.0	2.0	1.3	. 7	4.7	2.0	.7	2.7	1.3	3.3	1.3		X	
4.6	2.0	2.7			1.3		2,0		3.3	2.0	4.7	3,3	3.3	2.7	0.9	1.3		X	
1.3						1.			. 7	. 7	1.3	2.0	3.3	1.3	1.3			X	
SPEED (KNTS) DIR.	z	a N	N.	ENE		ESE	SE	SSE	5	SSW	SW	WSW	*	WNW	¥	NNN	VARBL	CALM	

TOTAL NUMBER OF OBSERVATIONS

150

6.7

SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

14793 STATION

4.3

7.5

1000

6.8 6.1 6.9 6.3 8.8

5 4 60

4.6

8.1

8.5

MEAN WIND SPEED

28 - 33

. 27 22

17 - 21

11 . 16

7 - 10

9 . 4

1.3

SPEED (KNTS) DIR.

0

2.7

2.0

NN

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

1

SURFACE WINDS

73-77

WILLOW GROVE, PENNSYLVANIA

YEARS

WEATHER CLASS ALL

22 HOURS (1.5.T.)

A P R

CONDITION

5.3 0.4 10.0 0.9 3.3 2.0 10.0 7.3 2.7 4.7 * ۱۷ الا . 55 4 41 - 47 34 - 40

1.3

4.7

1.3

SSW

SW

2.7

SSE

8

SE

2 . 1

2.7

1 . 3 1.3

ENE

¥

ESE

w

3.3

5.0 2.7 2.0 4.7

2.0

WSW

*NX

*

1.3 2.0 2.0 TOTAL NUMBER OF OBSERVATIONS

150

6.5

100.0

.

1.3

12.7

24.0

42.0

14.7

VARBL CALM

¥XX

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1. . 1.

2.0

119

DIRNAVOCEANMET SMOS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

14793

4.0 3.2

WIND WIND SPEED

8

12

6.7

2.2 5.5 2.5 2.4 7.3 9.9

6.3

6.7

2 8 0.9 7.2

9.6

10.3

7.0

SURFACE WINDS

200

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

YEARS

ALL WEATHER

ALL HOURS (L.S.T.)

APR

> . 27 22

17 - 21

11 - 16

7 - 10

1.3

SPEED (KNTS) DIR.

11.7 7.5 10000

TOTAL NUMBER OF OBSERVATIONS

0

2.0

18.0

30.7

29.8

11.0

VARBL

CALM

*XX

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4 ~ .

w 4 4

4.0

4.2 3.2

1.7 3.5

500

N

WSW

*

SW

1.7

3.2.2

2.2

1.2

SSW

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40.

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1:1

1.0

9.

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2.2

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ENE

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ESE SSE

w

NN

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0

1200

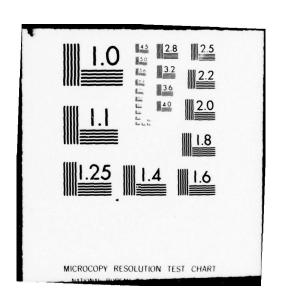
7.3

DIRNAVOCEANMET SMOS

14793 STATION

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/6 4/2 SUMMARY OF METEOROLOGICAL OBSERVATIONS, SURFACE (SMOS) WILLOW 6--ETC(U) JUL 78 AD-A063 832 UNCLASSIFIED NL 2_{0F}4 AD A063832



TOTAL NUMBER OF OBSERVATIONS

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

U:

ILLOW GROVE, PENNSYLVANIA	73-77	MAN
STATION NAME	YEARS	LHON
P	ALL WEATHER	0
	CIVES	NOURS (L.S
	CONDITION	1

MEAN WIND SPEED	4.4	3.6	2.0	7.0	5.6	3.5	6.3	3.0	5.0	3.9	4.2	5.3	4.7	5.4	6.1	6.3			3.8
×	5.8	4.5	9.	9.	5.2	2.6	3.9	1.9	8.4	7.7	6.5	2.6	6.7	4.8	5.2	1.9		21.3	100.0
% Al																		X	
48 · 55																		X	
41.0																		\bigvee	
34 - 40																		X	
28 - 33																		X	
22 - 27																		X	
17 . 21	2																	X	
91 . 11					9.						9.				0.	9.		X	2.6
7 . 10	0.			9.	0.		1.3		1.9	9.	9.	9.		3.5	1.3			X	14.2
;	3.9	3.2			2.6	9.	2.6	9.	3.9	3.2	3.2	1.3	2.6	3.2	2.6	0.		X	34.2
3	1.3	1.3	9.		1.3	1.9		1.3	2.6	3.9	5.2	9.	4.5	1.9	9.	9.		X	27.7
SPEED (KNTS) DIR.	z	N.	¥	EN EN	-	ESE	*	SSE	~	WSS	AS.	WSW	>	WWW	ž	NNN	VARBL	CALM	

WIND SPEED

×

3

28

12. Z

. 31

11

11 - 16

7 - 10

4.6

1.3

SPEED (KNTS) DIR.

0

9.

5.6

3.2

XX

9.

1.9

3.2 1.3

9.

ESE

0

BNE

¥

0

0

SURFACE WINDS JAN 78

5.6

SURFACE WINDS

E

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

04 nouns (1.5.T.)

MAY

COMBITION

WEATHER

ALL

12 48 - 55 41 . 47 4 2

6.0

3.9 3.9

4.04

12.3

9.

0.00

2.6

1.3

WS.W

¥5

SSW

•

1.3

1.3

1.9

s

355

35

1.3 1.3

1.3 1.3

2.6

2.0

NNA

ž

VARBL

3

3.2

NA.

*

5.2

11.6

39.4

20.0

5.5

5.2

TOTAL NUMBER OF OBSERVATIONS

155

3.9

100.0

23.9

=

SMOS DIRNAVOCEANMET

2

-

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

0

14793

5.1 4.6

MEAN WIND SPEED

33

28

. 27 22

17 - 21

11 . 16

7 - 10

1.3

.0 1.3 1.3

2.6

Z

ENE

¥

1.9

1.9

1.3 9.

22

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5

800

155

TOTAL NUMBER OF OBSERVATIONS

5.3

100.0

0

5.2

23.5

43.2

13.5

1.3 5.0

.

VARBL

CALM

6.

1.9

4.5

WWW. N N

*

9.

1.3

3.2

WSW

3

SSW

•

28 28

1.9 2.6

3.2

5.00.0

7.9

SURFACE WINDS JAN 5.5

SURFACE WINDS

=

PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

73-77

MILLOW GROVE, PENNSYLVANIA

YEARS

WEATHER CLASS

ALL

NOURS (L.S.T.)

MAY

CONDITION

3.9 5.8 3.5 5.2 14.2 9.0 8 . 55 4 . 47 7 34 - 40

9

SMOS DIRNAVOCEANMET

1250 65161

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

3

10

TAM

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77 WILLOW GROVE, PENNSYLVANIA NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

The second secon	CONDITION		
The state of the s			

ALL WEATHER

14793

0:

20

* WIND SPEED	4.5 6.7	3.2 5.2	2.6 4.8	4.5 6.7		5.8 7.0	1.3 5.5	4.5 6.7	5.8 8.3	5.2 7.3	5.2 6.8		14.2 6.5	9.7 8.4	12.3 9.2	2.6 9.5		5.2	
**																		\bigvee	
8 . 35																		X	
0.4																		\bigvee	
34 - 40																		X	
28 - 33														0.				X	
<i>u</i> · <i>u</i>																		\bigvee	
17 - 21																		X	
11.16				9.				9.	1.3			9.		1.9	3.2	1.3		X	
7 . 10	2.6	1.3	9.	1.3	3.2	3.2		9.		3.8		3.9	5.8	1.9	7.7	0.		X	
• • •	0.	9.	1.3	5.6	5.6	1.9	1.3	3.6	1.3	1.9	5.6	9.	7.7	3.9	9.			X	
::	1.3	1.3	9.		1.3	9.						1.3	9.	1.3	9.	9.		X	
SPEED (KNTS) DIR.	z	N.	¥	34		55	25	356	•	SSW	NS.	MSM	*	WWW	¥	NNW	VARBL	CALM	

(3)

0

0

0

(1)

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

14793

0

0

0

73-77 ALL MEATHER WILLOW GROVE, PENNSYLVANIA

13

MAM

SPEED (EDATS) DIR.	:	;	7.10	11 . 16	17.21	n · n	28 - 23	8 . 3	0.10	4 . 55	*		WIND WIND SPEED
z	1.3	1.9	1.9	1.3								6.3	7.6
¥			9.									9.	8.0
7		1.9										1.9	5.0
2			1.9									1.9	8.3
-	1.3	2.6	2.6	9.								7.1	4.9
25		9.	3.2									3.9	7.5
*		9.	6.1	9.								3.2	0.6
356	1.3	9.	9.	9.								3.2	5.8
•	9.	3.6	4.5	9.								8.4	7.3
SSW	1.3	9.	2.6	•								5.2	7.1
NS.	9.	1.3	3.5	9.								5.8	7.8
MSM		3.9	3.2									7.1	6.6
*	1.3	3.2	7.7	1.3								13.5	7.7
WWW		1.9	4.5	1.9								8.4	8.7
×	9.		3.9	5.6	9.							7.7	10.9
NNW		1.3	3.2	1.3	1.3							7.1	10.5
VARBL													
CALM	\bigvee	\bigvee	X	X	X	\bigvee	\bigvee	\bigvee	\bigvee	X	X	8.4	
	8.4	23.2	45.8	12.3	1.9							100.0	7.3

0

0

0

0

0

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155

PERCENTAGE FREQUENCY OF WIND

DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

73-77 ALL MEATHER

WILLOW GROVE, PENNSYLVANIA

14793

16

MAY

SPEED (KOMS) DIR.	1:3	;	7.10	11.16	17.21	n · n	22 . 33	2. 2	41.0	48 - 55	*		WIND SPEED
z		1.3	0.	1.3	9.							3.9	11.2
MA		0.										9.	5.0
¥		0.	1.3									1.9	7.3
BNE		9.	1.3	9.								2.6	8.5
-	9.	1	2.6									4.5	6.1
25			3.2	9.								3.9	8.8
35		9.	1.3									1.9	6.7
388	9.		3.2	9.								5.2	7.6
	9.	4.5	2.6	9.								4.8	6.3
WSS	9.		1.9	1.3								7.7	7.3
W.		5.6	5.2	0.								8.4	7.5
WSW	9.	1.3	4.5	1.3								7.7	8.8
*	1.3	6.9	3.2	9.								11.6	1.9
WWW	1.3	1.9	3.6	5.6								6.4	8.1
ž		5.6	4.5	5.8								12.9	10.0
MNN		1.3	1.9		9.							3.9	9.2
VARBL													
CALM	X	X	X	X	X	\setminus	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	5.2	
	5.8	30.3	41.3	16.1	1.3							100.0	7.5

0

0

0

DIRNAVOCEANMET SMOS

155

TOTAL NUMBER OF OBSERVATIONS

90

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

4.6

8.5

8.3

WIND SPEED

2

. 27 22

. 21 11

11 . 16

7 . 10

4.6

1.3

SEED SEED

9.

•

1.3

9.

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3.2

253

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352

*

3

9.

3.2

3.2 3.2 2.6 1.9

9. 1.9

0

PERCENTAGE FREQUENCY OF WIND

(FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

=

MAY

SURFACE WINDS

73-77

WILLOW GROVE, PENNSYLVANIA

WEATHER

COMBITION

3.2 3.2 3.9 8.4 1.7 7.7 11.0 7.1 100.0 × 8 . 55 4 0. 7 \$ 7 3

=

5.2

5.5 5.5 5.7

DIRNAVOCEANMET SMOS

母での

14793

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0

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

Z

z

Z Z

WSW WSW

SSW

WWW NA SA VARBL

*

CALM

=

155

TOTAL NUMBER OF OBSERVATIONS

9

5.5

31.6

31.6

20.0

0

3.9

1.3

3.2

00

3.9 3.2

9.

4.5

E

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

YEARS

22 mounts (1.5.7.)

MA W

ALL WEATHER

	-		
	-		
	- 1		
	1		
	1		
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	- 1		
	1		
	- 1		
	- 1		
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	- 1		
	- 1		
-	- 1		
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-			
-			
-	- 1		
-			
10110101			
10111000			
1011101			
-			
10111000			
-			
-			
-			
-			
-			

(KNTS)	:-	;	7.10	11 - 16	17 . 21	n · n	28 - 33	 8	41.0	8 . 35	*	*	WEAN WIND SPEED
z	1.3	3.2	2.6	1.9								0.6	7.4
N.	9.	9.	2.6									3.9	7.0
w Z	9.											9.	3.0
ENE	0.											9.	2.0
	1.3	1.3	9.									3.2	4.4
ESE	1.9	2.6										4.5	4.0
35	9.	2.6	2.6									5.8	5.8
SSE		3.9	1.3									5.2	6.0
	9.	3.9	3.2	0.								8.4	6.2
SSW	5.2	5.5	1.9	0.								12.9	6.4
S.W	2.6	5.2	5.6									10.3	4.9
WSW	2.6		2.6									5.2	5.5
*	9.	5.5	2.6	1.3								9.7	6.3
WWW	1.9	9.7										4.5	4.1
×	9.	9.	1.3									2.6	0.9
NNN		1.9				9.						2.6	10.0
VARBL													
CALM	X	X	X	X	X	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	11.0	
	21.3	38.7	23.9	4.5		9.						100.0	5.1

0

0

0

DIRNAVOCEANMET SMOS

0

0

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=

155

TOTAL NUMBER OF OBSERVATIONS

20

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

0

14793

1

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

73-77

YEARS

ALL HOURS (L.S.T.)

MAY

ALL WEATHER

COMBITION

SPEED (KNTS) DIR.	1.3	9.7	7 . 10	11 - 16	17 . 21	n. n	28 - 33	34 . 46	41 - 47	48 . 55	85	*	MEAN WIND SPEED
z	1.3	2.1	1.3	.,	• 1							5.5	6.6
Z Z	1.1	1.1	.7									3.0	6.4
ž	2.	1.1	.5.									1.9	5.4
BNE	2.	1.0	6.	.2								2.3	6.5
•	1.0	2.1	1.9	.2								5.3	6.2
253	1.0	1.6	1.5	.2								4.3	0.9
*	2.	1.3	1:1	7.								2.7	4.9
388	1.0	1.9	1:1	.2								6.3	5.7
•	6.	2.7	2.7	5.								6.7	6.5
MSS	1.9	3.2	2.5	.3								6.6	5.8
AS.	1.4	5.5	2.1	4.								4.9	0.9
WSW	1.0	1.9	2.7	4.								6.6	6.7
*	2.3	5.1	3.4	9.								11.3	5.8
WHW	1.2	3.1	2.3	6.	1.		-:					7.6	6.9
¥	9.	1.9	3.2	2.0	-							7.8	8.5
MMM	.5	1.7	1.3	6.	. 2	•1						4.7	8.1
VARBL													
CALM	\bigvee	\bigvee	\bigvee	X	X	X	X	\bigvee	\bigvee	X	\bigvee	12.5	
	15.8	34.2	29.5	7.6	.5	.1	.2					100.0	5.6

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1240

TOTAL NUMBER OF OBSERVATIONS

DIRNAVOCEANMET SMOS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

WIND SPEED

3.8 5.0 5.6 5.5

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

(FROM HOURLY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

14793

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73-77

10 NO.

ALL WEATHER

COMBITION

11 - 16

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SPEED (KNTS)

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8 . 8															
28 - 33 34 - 40 41 - 47 48 - 55															
4 . 4															
28 - 33															
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17 - 21															
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VARBL SALA

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TOTAL NUMBER OF OBSERVATIONS

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DIRNAVOCEANMET SMOS

5702 SURFACE WINDS JAN 78

SURFACE WINDS 0.4 O

YEARS

73-77

WILLOW GROVE, PENNSYLVANIA

14793

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ALL WEATHER

COMDITION

2

PERCENTAGE FREQUENCY OF WIND

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

(FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

0

SPEED (KNTS) DIR.	6:-	:	7 - 10	91 . 11	17 . 21	22 . 27	28 . 33	4 . 4	9.1	4 . 35	8 Al	*	MEAN WIND SPEED
T	2.0	1.3		1.3								4.7	5.7
Z Z	1.3	2.0										3.3	3.6
w Z		2.0	1.3									0.4	5.3
ENE		1.	1.3									2.7	6.8
	2.0	.,										2.7	2.8
ESE	.7	1.3	. 7									2.7	5.5
	2.0	5.3										7.3	4.1
	1.3	2.0	1.3	.7								5,3	5.5
SSW	1.3	4.0	1.3	.,								7.3	5.4
	. 7	3.3										0.4	4.5
WSW	.7	4.7	.7									0.9	4.6
	4.7	7.3	.7									12.7	4.2
WWW	2.7	6.7	.7									10.0	4.3
		2,0										2.0	5.0
NNN	1.3	2.0	1.									0.4	5.0
VARBL													
CALM	\bigvee	\bigvee	X	X	X	X	\bigvee	\bigvee	\bigvee	X	X	21.3	
	22.0	45.3	8.7	2.7								100.0	2.7

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TOTAL NUMBER OF OBSERVATIONS

DIRNAVOCEANMET SMOS

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150

TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

0 NO

14793

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

1

SURFACE WINDS

YEARS 73-77 ALL WEATHER COMDITION WILLOW GROVE, PENNSYLVANIA

NOURS (L.S.T.)

NO.

WEAN WIND SPEED	8.0	4.5	5.7	4.6	4.3	5.0	4.5	5.9	4.9	4.5	5.1	5.3	4.8	5.5	4.0	5,8			4.6
*	4.7	1.3	6.7	3.3	5.3	0.4	2.7	4.7	0.9	4.0	4.7	7.3	11.3	11.3	4.7	0.9		12.0	100.0
*																		X	
48 · 35																		X	
41.4																		\bigvee	
34 - 46																		\bigvee	
28 . 33																		X	
$n \cdot n$																		X	
17 - 21																		X	
11 - 16	1.3							1.						1.		1.		X	3.3
7 - 10	1.3		2.7	1.3	1.3				1.3	1.	1.3	.7	2.0	2.0	. 7	2.0		X	18.0
• •		1.3	1.3	.7	1.3	0.4		2.7	2.7	2.0	2.0	6.7	0.9	6.7	2.0	1.3		X	42.0
3	1.3		2.7	1.3	2.1		1.3	1.3	2.0	1.3	1.3		3.3	2.0	2.0	2.0		X	24.7
SPEED (KNTS) DIR.	z	N.	N.	E.E.	w	ESE	35	SSE	•	SSW	NS.	WSW	*	WNW	¥	N.A.	VARBL	CALM	

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0.0 7.3

10 HOURS (L.S.T.)

NO ME

MEAN WIND SPEED

12

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

200

SURFACE WINDS

73-77 WILLOW GROVE, PENNSYLVANIA

YEARS

WEATHER ALL

CONDITION

17 - 21

11 . 16

7 - 10

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SPEED (KNTS) DIR.

100.0 6.7

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Z Z Z 2.7

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VARBL

CALM

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TOTAL NUMBER OF OBSERVATIONS

150

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8.7

29.3

46.7

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SMOS DIRNAVOCEANMET

8.6 5.5

WIND SPEED

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17 . 21

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SPEED KNTS)

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SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

14793

0

13

NO.

* EATHER

100.0

8.0

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10.7

6.9

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TOTAL NUMBER OF OBSERVATIONS

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.7

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5.0

MSM

S.W.

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7.2

SMOS DIRNAVOCEANMET

5

PERCENTAGE FREQUENCY OF WIND

(FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

WILLOW GROVE, PENNSYLVANIA

73-77

16

WEATHER CLASS

WIND WIND SPEED	8.8	8.0	8.0	6.5	6.2	7.6	6.3	6.3	7.1	6.7	8.2	6.8	7.4	8.3	6.7	7.4		7.0
	0.4	2.0	3.3	0.4	0.4	3.3	0.4	2.0	10.0	4.7	7.3	10.0	14.0	8.0	8.7	7.3	3.3	100.0
*																	X	
8 . 8																	X	
41.0																	X	
34 - 16																	X	
8 · 3																	X	
u · u																	X	
17.21																	X	
11 . 16	7.	7.	.7			.7			1.	.7	1.3	.7	1.3	2.7	1.3	2.0	X	13.3
7.10	2.7		1.3	2.0	2.7	.7	2.0	.7	5.3	1.3	2.7	0.4	6.7	2.7	2.7	2.0	X	39.3
•••	1.	1.3	1.3	2.0		2.0	2.0	1.3	2.7	2.7	3.3	4.7	5.3	1.3	2.7	5.0	X	35.3
:					1.3				1.3			. 7	1.	1.3	2.0	1.3	X	1.9
MIN WE THE	-	-	name of	-	-	mener	10000	1000	-	10000	men	-	-	Name of	-	100	-	and the latest designation of the latest des

DIRNAVOCEANMET SMOS

150

TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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14793

SPEED ENTS)

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MEAN WIND SPEED

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17 - 21

11 . 16

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SPEED (KNTS)

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SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

MAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

NO

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(FROM HOURLY OBSERVATIONS)

73-77

*ILLUM GROVE, PENNSYLVANIA

14793

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ALL MEATHER

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COMBITION

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TOTAL NUMBER OF OBSERVATIONS

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SMOS DIRNAVOCEANMET

WIND SPEED

SURFACE WINDS JAN

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

73-77

WILLOW GROVE, PENNSYLVANIA

ALL WEATHER

22

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COMBITION

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17 - 21

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SPEED (DATS)

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TOTAL NUMBER OF OBSERVATIONS

DIRNAVOCEANMET SMOS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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PERCENTAGE FREQUENCY OF WIND

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

20

DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

WILLUM GROVE, PENNSYLVANIA

14793

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ALL WEATHER

73-77

ALL HOURS (L.S.T.) NO C

COMBITION

WIND WIND SPEED	6.9		5.9										5.5	1 6 .1		1.2		0	
*	3.7	2.1	3.0	4.2	4.0	3.3	3.4	5.2	8.7	7.6	6.9	7.3	11.	8.3	4.7	6.4		11.0	000.
%																		\bigvee	
48 . 55																		X	
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28 . 33																		\bigvee	
22 . 27										•1								\bigvee	
17 - 21										7.						.1		\bigvee	
11 . 16	9.	.2	.2	7.		.2		1.	.7	9.	.2	.2	.1	1.	.7	1.0		X	
7 . 10	1.2	.2	1.	2.1	1.2		1:1		3.5	2.0	1.8	1.4	2.7	2.2	1.0	1.1		X	
• •	6.	1.3	1.3	1.2	1.1	1.9	7.8	2.7	3.7	3.5	3.4	4.7	5.7	4.1	2.0	1.8		X	
::	6.	4.		1.	1.0	.5	c.	1.6	1.2	1.3	1.3	1.0	5.6	1.2	1.0	6.		X	
SPEED (KNTS) DIR.	z	NNE	N.	E		ESE	35	SSE	s	SSW	SW	WSW	*	WWW	×	NNW	VARBL	CALM	

TOTAL NUMBER OF OBSERVATIONS

1200

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SURFACE WINDS JAN 78

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

73-77 ALL WEATHER

WILLOW GROVE, PENNSYLVANIA

14793

YEARS

NOUNS (L.S.T.)

COMDITION

MEAN WIND SPEED	3.9	7.0	3.0		4.0	4.0	0.9	3.4	3.2	4.6	4.9	4.9	4.3	5.5	4.0	4.8			
×	5.2	9.	1.3		9.	9.	9.	3.2	6.5	7.7	11.0	4.5	12.9	2.6	3.9	7.7		31.0	
%																		\bigvee	
48 · 55																		\bigvee	
41.4																		\bigvee	
34 . 40																		\bigvee	
28 . 33																		\bigvee	
n · n																		X	
17 - 21																		X	
11 - 16										9.	0.							X	
7 - 10	9.	0.								1.3	1.9	9.	1.3	0.	9.	2.6		X	
• •	2.6		•		9.	9.	9.	1.3	3.2	5.6	5.2	3.2	7.7	1.9	1.9	1.9		X	
	1.9		0.					1.9	3.2	3.2	3.2	0.	3.9		1.3	3.2		X	
SPEED (KNTS) DIR.	z	N.	¥	ENE		ESE	*	SSE	5	ASS	NS.	WSW	3	WWW	3	NN.	VARBL	CALM	

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3888

DIRNAVOCEANMET SMOS

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155

TOTAL NUMBER OF OBSERVATIONS

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2.6

MEAN WIND SPEED

128

48 . 55

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

ALL WEATHER

04 HOURS (L.S.T.)

COMDITION

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SPEED (KNTS) DIR.

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TOTAL NUMBER OF OBSERVATIONS

155

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DIRNAVOCEANMET SMOS

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14793

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NO

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5702 SURFACE WINDS JAN 78

WIND SPEED 9.0

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7 - 10

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SPEED (KNTS) DIR.

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SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

73-77

WILLOW GROVE, PENNSYLVANIA

ALL WEATHER

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COMBITION

TOTAL NUMBER OF OBSERVATIONS

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DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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1.3 5.6 5702 SURFACE WINDS JAN 78

SURFACE WINDS

311

10 HOURS (1.5.T.)

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS) 73-77 WILLOW GROVE, PENNSYLVANIA NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

ALL WEATHER

14793

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155

TOTAL NUMBER OF OBSERVATIONS

7.4

MEAN WIND SPEED

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SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

14793

73-77

WEATHER

13

3

COMBITION

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17 - 21

11 . 16

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11.0 16.8 10.3 8.4

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TOTAL NUMBER OF OBSERVATIONS

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155

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100.0

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4.5

DIRNAVOCEANMET SMOS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

CALM

6.0

WIND WIND SPEED

128

. 27 22

17 - 21

11 . 16

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

WILLOW GROVE, PENNSYLVANIA

14793

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73-77

VEARS

16 HOURS (1.5.T.)

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SURFACE WINDS

ALL WEATHER

COMBITION

48 . 55 41 . 47 34 - 40 28 . 33

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TOTAL NUMBER OF OBSERVATIONS

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VARBL

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DIRNAVOCEANMET SMOS

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

WEATHER CLASS ALL

73-77

WILLOW GROVE, PENNSYLVANIA

14793

0

YEARS

19

5

COMBITION

2.0 MEAN WIND SPEED × 12

7 - 10

4.6

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3.2 8.4 11.6 7.7 8.4 3.2 3.9 10.3 7.1 100.0 48 . 55 41 . 47 34 - 40 28 . 33 22 . 27 .0 0 17 - 21 • 9. 11 . 16 9. 9. 1.3 .0 2.6 1.3 16.1

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WWW

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N. VARSL CALM

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4.3 4.6

5.8

155

TOTAL NUMBER OF OBSERVATIONS

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MEAN WIND SPEED

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34 - 40

. 33

58

22 . 27

17 - 21

11 . 16

7 - 10

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SPEED (KNTS) DIR.

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SSE SE

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WSW WSW

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11.0

4.6 5.1.

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WILLOW GROVE, PENNSYLVANIA

14793 STATION

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

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SURFACE WINDS

(FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

20

WEATHER ALL

73-77

YEARS

22 HOURS (L.S.T.)

3

CONDITION

155

3.8

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TOTAL NUMBER OF OBSERVATIONS

DIRNAVOCEANMET SMOS

SURFACE WINDS JAN 78

WINDS SURFACE 218

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

73-77 WEATHER CLASS ALL

WILLOW GROVE, PENNSYLVANIA

14793

YEARS

HOURS (L.S.T.)

CONDITION

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5.7 000000 5.3 5.6 5.6 5.6 4.1 MEAN WIND SPEED 13.2 9.0 1.4 2.3 3.0 4.8 7.0 7.5 14.6 1.9 7.9 100.0 * 8 . 55 4 . 7 34 - 40 28 - 33 . 27 2 -17 - 21 0. 3.3 4. : : 11 - 16 1.0 1.5 3.5 20.1 . 2 1.3 7 - 10 7.6 42.3 3.3 1.0 • 1.5 1.9 7.0 0 19.5 20.40 9. 1.3 *NA VARBL W.X WSW ¥ZZ CALM SSW E E ESE ¥S. ž SSE 25 S ₹

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TOTAL NUMBER OF OBSERVATIONS

SMOS DIRNAVOCEANMET

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

WEATHER

YEARS

ALL

NOVES CLS.T.

AUG

CONDITION

MEAN WIND SPEED 13.5 3.2 3.9 28.4 100.0 5.6 1.3 5.8 5.8 3.9 1.3 12 . 55 4 41 . 47 \$ 2 . 33 78 22 - 27 17 - 21

> 1.3 2.6 9.

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SMOS DIRNAVOCEANMET

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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SPEED (KNTS) DIR.

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TOTAL NUMBER OF OBSERVATIONS

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SURFACE WINDS

5702 SURFACE WINDS JAN 78

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

14793

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PERCENTAGE FREQUENCY OF WIND

(FROM HOURLY OBSERVATIONS)

AUG	#0#T#	*0	HOVES (L.S.T.)	
73-77	17.18	*FATHER	CIVES	COMBITION
GROVE, PENNSYLVANIA	STATION NAME	N		

MEAN WIND SPEED	4.0	4.0	4.0	4.6	4.3	3.0	4.3	5.0	5.2	4.8	4.1	3.0	3.4	4.4	4.8	4.2			3.1
*	3.2	2.6	1.3	5.2	4.5	1.3	1.9	1.9	3.9	5.2	7.7	5.8	11.0	7.1	5.8	5.8		25.8	100.0
*		recen						CONTRACT OF STREET										\bigvee	
8 . 33																		X	
41.0																		\bigvee	
3 6																		\bigvee	
28 - 33																		\bigvee	
$\boldsymbol{n} \cdot \boldsymbol{n}$																		\bigvee	
17 - 21																		\bigvee	
11 - 16														9.				\bigvee	9.
7 - 10				1.3	9.			9.	1.3	1.3	1.3		0.			9.		\bigvee	7.7
•	3.2	1.9	9.	1.9	1.3	9.	1.9	9.	1.3	2.6	3.2	1.9	3.2	3.2	5.5	5.6		X	35.5
:		9.	9.	1.9	2.6	0.		0.	1.3	1.3	3.8	3.9	7.1	3.2	9.	5.6		X	30.3
SPEED (KNTS) DIR.	z	N.	¥.	Z	-	253	*	388	s	SSW	NS.	WSW	*	WWW	¥	K	VARBL	CALM	

TOTAL NUMBER OF OBSERVATIONS

DIRNAVOCEANMET SMOS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

YEARS

ALL WEATHER

07 HOURS (1.5.T.)

AUG

CONDITION

SPEED (KNTS) DIR.	1.3	•	7 - 10	11 . 16	17 . 21	22 - 27	28 - 33	34 - 46	41 . 47	48 · 55	*	*	MEAN WIND SPEED
z	1.9	2.6	9.									5.5	4.4
NN	1.3	-	0.									3.2	8 4
N.	1.9	-										4.5	4.1
ENE		5.6										3.2	5.4
	1.3	2.6										4.5	4.4
ESE													
38	9.	1.3										1.9	3,3
SSE		9.	9.									1.3	6.5
5	1.3	-	9.									3.2	4.0
ASS	1.9	0.	1.3									3.9	5.2
NS.	1.3	5.5										6.5	4.2
WSW	2.6	5.5	9.									8.4	4.5
*	1.9	4.5	1.3									7.7	4.8
WWW	5.8	6.9	9.									12.9	3.7
3	3.9	1.9	0.									6.9	4.2
NN	5.6	9.	1.9									5.2	4.6
VARBL													
CALM	X	X	X	\bigvee	\bigvee	21.9							
	38 6	28.7	0.11									100.0	7 2

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DIRNAVOCEANMET SMOS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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155

TOTAL NUMBER OF OBSERVATIONS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NO

73-77 ALL MEATHER

WILLOW GROVE, PENNSYLVANIA

14793

TARS.

10

5.1 MEAN WIND SPEED 3.9 3.2 3.2 11.0 5.2 100.0 7.1 12 . 55 4 . 40 7 34 . 45 8 28 . 27 Z 17 - 21 1.9 9. 9. 0 11 . 16 0 1.3 1.9 9. 5.6 3.9 25.2 1.3 5.0 1.3 1.9 1.3 . 7 . 10 45.2 2.5 9. 1.3 3.5 1.3 1.9 1.9 1.3 1.3 3.2 7.1 4.6 22.6 1.3 5.6 1.3 SPEED PIR. WSW. WAN NEWS VARBL CALM Z *SS Z ž 3 33 3 * ¥ 3 Z • -

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4.3 6.3

TOTAL NUMBER OF OBSERVATIONS

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WINDS	100	100	0000	3544	55.77	22.55	1000	42.54	0000	88 64	35.00	37.00	7.600	36.39	00.5	3.4.1			5.3
* *	61.56	0517	25.00	45.55	(1) (1) (2) (3)	22.00	40.	3.00	33.22	35.25	**	00.00	0011	11.00	85.40	4.77		3.22	100001
99 84 81																		X	
4848 5555	and the same of th																	M	
4143 4747																		X	
3434 2040																			
2828 2333																		\bigvee	
2222 2327																		X	
1717.2121																		X	
11.11 1616	1.30									1.3			6						3.2
7 7 1010			1.3	**	9			. 3	9.6	2,5	1.00	3,2	3, 10	6,5	2.5	2.6			32.9
9		. 6		0 *			i	4.	2.8	4.	200	3.6	3.2	2.30	5.5	8.2			43.2
172 - 173 - 173	25.00		. 6.			2.5		9.		0.	4	10.1	9.		0.	1.9			18.5
372	1	1	7	SAS	142	382	25	355	45	MSS	WS.	WSW	*	MANA	WW	MMM	VARBL	CALM	

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TOTAL HUMBER OF DESERVATIONS

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MEAN WIND SPEED

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155

TOTAL NUMBER OF OBSERVATIONS

SURFACE WINDS

35.55

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

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16 HOURS (L.S.T.)

AUG

ALL MEATHER

COMBITION

SPEED (KNTS) DIR.

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4.6 7.10	.6 2		1.3 2		1.9	1.3	1.9	-	.3 1.9 3	3.2 3	.6 5.8 3	0.6	4.5	5.2	.2 3.9 2.	X
1 . 16	2.6	1.9 .6	2.6	9. 9.		9.	9.	9. 9.	3.2 1.3	3.9	3.2 .6	3.9	3.9	3.2	2.6 .6	X
17.21		•		•		2	•	•	8		9				9	\setminus
n · n																X
28 - 33																X
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DIRNAVOCEANMET SMOS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

73-77 HILLOW GROVE, PENNSYLVANIA

14793

YEARS

ALL WEATHER CONDITION

19

AUG

:-	;	7 . 10	1.16	17 . 21	2.2	28 - 33	34 . 46	41.47	48 - 55	×	*	WIND SPEED
1.3	1.9		9.								3.9	5.2
9.			9.								1.3	9.5
9.	9.	5									3.2	4.0
9.	1.3	9.									2.6	5.8
1.9	4.5	9.									7.1	5.0
9.											1.9	3.7
9.	2.6										3.2	3.8
	2.6					,					2.6	5.8
9.	3.5		9.								4.5	5.7
1.9	3.2	1.9									7.1	4.6
3.9	3.9	0.									8.4	0.4
3.2											6.5	3.8
10.3	5.5										15.5	3.2
2.5	3.9	9.									7.1	4.2
2.6	1.3										3.9	3.2
9.	5.6										3,2	4.4
X	X	\bigvee	X	\bigvee	18.1							
32.3	41.3	6.5	1.9								100.0	3.6

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155

TOTAL NUMBER OF OBSERVATIONS

155

TOTAL NUMBER OF OBSERVATIONS

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NO

(FROM HOURLY OBSERVATIONS)

73-77 WILLOW GROVE, PENNSYLVANIA

14793

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ALL WEATHER

TEARS

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COMBITION

SPEED (KNTS) DIR.	1.3	9:-	7 . 10	11 . 16	17 . 21	<i>u</i> · <i>u</i>	28 - 33	34 . 46	11 . 4	8 . 8	84	*	MEAN WIND SPEED
z	1.9	9.	0.		9.							3.9	6.8
N		9.	0.									1.3	7.5
¥	1.9											1.9	
2													
	1.3	5.6	9.									4.5	4.9
253	9.	9.										1.3	3.5
*	1.9	1.3										3.2	3.6
388	1.3	1.3	1.3									3.9	4.7
•	3.9		1.3									7.7	4.2
SSW	1.9	3.9	1.3									7.1	4.9
NS.	2.6											0.6	3.9
MSM	1.3		1.3									7.7	4.8
*	4.5	4.5										0.6	3.6
WWW	3.9	1.9										5.8	3.3
MM	1.3	1.3	1.9									4.5	5.4
NNW	3.2	1.9										5.2	3.0
VARBL													
CALM	\bigvee	\bigvee	X	X	\bigvee	X	\bigvee	\bigvee	\bigvee	X	\bigvee	23.9	
	31.6	34.8	0.6		3.							100.0	3.3

5.5 6.4 9.6

5.1 2.8

MEAN WIND SPEED

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SPEED (KNTS) DIR.

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SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

(FROM HOURLY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

14793

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73-77

YEARS

WEATHER CLASS

ALL HOURS (L.S.T.

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COMBITION

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TOTAL NUMBER OF OBSERVATIONS

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SMOS DIRNAVOCEANMET

SURFACE WINDS JAN 78

5.3 MEAN WIND SPEED

01 HOWEN (1.5.T.) SEP

MR.

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

(FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

YEARS

73-77

WILLOW GROVE, PENNSYLVANIA

14793

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ALL MEATHER

COMBITION

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TOTAL NUMBER OF OBSERVATIONS

150

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DIRNAVOCEANMET SMOS

WIND SPEED

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17 - 21

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SPEED (KNTS) DIR.

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4.6 5.6 3.3 0.4 9.0

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SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

73-77 WILLOW GROVE, PENNSYLVANIA

14793

COMBITION

YEARS ALL WEATHER

04 MOUNTS (1.5 T.)

SEP

4.3 3.3 2.0 7.3 6.3 2.7 4.7 28.7 12 48 - 55 41 . 47 34 . 40 28 . 33

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2.0

WWW

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NNW VARBL CALM

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TOTAL NUMBER OF OBSERVATIONS

4.1

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

73-77

NOURS (LS.T.)

SEP

CONDITION

ALL WEATHER

5.3 2.5 8.9 3.7 3.5 MEAN WIND SPEED 26.19 5.3 25.3 8.0 100.0 × 20 48 . 55 41 . 47 34 . 40 28 . 33 22 - 27 1. 17 - 21 11 . 16 1.3 2.7 12.7 1.3 2.7 7 - 10 2.7 36.7 1,3 6.7 4.7 1.3 4.0 1.3 2.7

TOTAL NUMBER OF OBSERVATIONS

150

SMOS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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DIRNAVOCEANMET

MEAN WIND SPEED

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

20

WILLOW GROVE, PENNSYLVANIA

14793

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STATION NAME

73-77

YEARS

ALL WEATHER

NOURS (L.S.T.)

SEP

COMBITION

0.00 5.23 3.3 0.9 10.0 100.0 12 48 - 55 41 . 47 34 - 40 28 - 33 22 . 27 17 - 21 5.3 1.3 . 11 - 16 28.7 3.3 0.4 1.3 1.3 1.3 2.7 7 . 10 0.44

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SPEED (KNTS) DIR.

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TOTAL NUMBER OF OBSERVATIONS

5.7

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150

TOTAL NUMBER OF OBSERVATIONS

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

(FROM HOURLY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

14793

73-77

YEARS

ALL WEATHER

CONDITION

NOURS (L.S.T.)

SEP

MEAN WIND SPEED	6.5	4.5	8.0	5.3	7.5	7.6	0.9	4.0	6.7	7.9	8.6	6.4	6.3	7.9	7.1	9.9			
*	6.7	2.7	.,	2.7	0.4	4.7	0.4	3.3	4.7	4.7	0.9	7.3	15.3	9.3	10.7	0.9		7.3	
9 Al																		X	
48 - 55																		X	
41 - 47																		\bigvee	
34 - 40																		\bigvee	
28 - 33																		\bigvee	
22 - 27																		\bigvee	
17 . 21																		\bigvee	
91 . 12	.7				1.3	1.3				1.3	. 1	. 7		.,	1.3	.7		X	
7 . 10	2.0		.7	. 7	.7		1.3	1.3	2.7	. 7	3.3	2.0	5.3	6.7	3.3	2.0		X	
*;	2.			1.3	1.3	2.7	2.0	1.3	2.0	2.7	2.0	2.7	7.3	2.0	5.3	2.7		X	
1.3	1.3			. 7	1.	.7		1.				2.0	2.0			. 7		X	
SPEED (KNTS) DIR.	z	Z Z	w Z	ENE		ESE	35	SSE	•	SSW	AS.	WSW	*	WWW	×	NNN	VARBL	CALM	

150

TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

=

SURFACE WINDS

(FROM HOURLY OBSERVATIONS)

73-77 ALL WEATHER WILLOW GROVE, PENNSYLVANIA

16 HOURS (L.S.T.)

SEP

COMDITION

0.000 5.8 5.3 7.5 6.9 6.2 6.7 MEAN WIND SPEED 4.7 3.3 8.3 100.0 4.7 12 48 - 55 41 . 47 34 - 40 28 . 33 22 - 27 17 . 21 6.7 1.3 11 . 16 4 2 2 3 7 36.0 2.0 0.4 0.4 2.7 1.3 1.3 7 . 10 38.0 100 3.000 1.3 2.0 1,3 1. 4.6 14.0 1.3 CALM SPEED (KNTS) DIR. WSW *NE NN. VARBL Z w ENE SSW ž 25 SE SSE 3 * -*

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14793

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MEAN WIND SPEED

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8.0 2.0

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5.4 4.9

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6.1

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

1111

SURFACE WINDS

73-77

WILLOW GROVE, PENNSYLVANIA

YEARS

19 NOVES (1.5.T.)

SEP

MEATHER CLASS ALL

COMBITION

11.

7 - 10

4.6

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(KNTS)

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17 - 21										\bigvee
<i>u</i> · <i>u</i>										\bigvee
28 - 33										\bigvee
2.4										\bigvee
0.11										\bigvee
48 . 55										\bigvee
										/ \

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SW

MSM

TOTAL NUMBER OF OBSERVATIONS

150

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100.0

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18.0

34.7

26.7

VARBL

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1.3 1.3 18.7

DIRNAVOCEANMET SMOS

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PERCENTAGE FREQUENCY OF WIND

DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

73-77 ALL WEATHER

WILLOW GROVE, PENNSYLVANIA

14793

22 HOURS (1.5.T.)

SEP

COMDITION

MEAN WIND SPEED	6.1	5.5		0.6	4.5	6.0	3.7	5.1	5.1	4.7	0.9	5.4	4.3	5.8	0.9	3.0			
*	4.7	1.3	2.0	3.3	5.3	2.7	4.7	0.9	0.9	0.9	0.9	4.7	7.3	6.3	4.0	2.0		25.3	
%																		\bigvee	
48 - 55																		\bigvee	
41.4																		\bigvee	
34 . 40																		\bigvee	
28 - 33																		\bigvee	
2.2																		\bigvee	
17 - 21																		X	
91 . 16				1.3								1.						X	
7.10	2.0			1.3	1.	1.3		2.0	1.3	1.3	1.3	. 1	1.	1.3	1.3			X	
;	2.7	1.3	1.3	1.	2.7	1.3	3.3	2.0	0.4	2.0	3.3	2.0	3.3	4.7	2.0	.7.		X	
1:3					2.0		1.3	2.0	.7	2.7	. 1	1.3	3.3	2.0	.7	1.3		X	
SPEED (KNTS) DIR.	z	N.	Z	B.	-	ESE	*	388	8	SSW	SW	WSW	*	WWW	*	N.	VARBL	CALM	

0

0

DIRNAVOCEANMET SMOS

150

TOTAL NUMBER OF OBSERVATIONS

5.0

WIND SPEED

*

. 33

28

. 27 2

17 . 21

11 . 16

7 - 10

1.3

(KNTS)

5.2 5.3

4 2 0 4 4 4 4 2 3

6.5

5.5

10.7

5.7

9.9

6.7

5.0

PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

3

SURFACE WINDS

73-77

WILLOW GROVE, PENNSYLVANIA

14793

WEATHER

ALL

ALL HOURS (LST.)

SEP

COMBITION

12 48 - 55 41 . 47 34 - 40

.

2. 6.

1.2

1.5

SSW

WSW

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3

2.0 2.6

2.2 2.3

3.6

WNW ž ž

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ESE

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-7 TOTAL NUMBER OF OBSERVATIONS

3

1200

4.6

100.0

3.

3.5

21.4

37.5

18.7

CALM

0

VARBL

18.5

SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

SURFACE WINDS

E

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77 ALL MEATHER

YEARS

NOURS (L.S.T.)

OCT.

COMBITION

* WIND SPEED	5.2 4.8	3.9 4.0	5.2 3.9	5.8 5.4	1.9 5.3	2.6 6.0	1.3 3.5	1.3 3.0	2.6 2.8		4.5 5.3	5.8 4.4	7.1 4.6	10.3 6.4	7.1 4.1	7.1 5.4		25.8	100.0
%																		X	
48 - 55																		X	
41 - 47																		\bigvee	
34 - 40																		\bigvee	
28 - 33																		\bigvee	
22 - 22																		\bigvee	
17 . 21																		\bigvee	
11 . 16	9.													1.3		9.		X	,
7 - 10	9.	9.		1.3	9.	9.					9.	1.3	1.9	1.3	0.	1.3		X	
•	1.9	1.9	5.6	3.2	9.	1.9	9.		9.	1.9	3.2	1.9	5.6	1.1	3.9	2.6		X	0
.: ::	1.9	1.3	5.6	1.3	9.		9.	1.3	1.9	9.	9.	2.0	5.6	9.	2.6	5.6		X	0
SPEED (KNTS) DIR.	z	NN	w z	ENE		525	35	SSE	s	SSW	NS.	WSW	*	WWW	ž	NNN	VARBL	CALM	

TOTAL NUMBER OF OBSERVATIONS

155

1

14793

WILLOW GROVE, PENNSYLVANIA

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

DIRNAVOCEANMET SMOS

SURFACE WINDS JAN 78

4.6 4.0 3.3

MEAN WIND SPEED

*

12

. 55 3

41 . 67

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7 . 10

1.3

SPEED (KNTS) DIR.

1.9

3.2 7.1

=

5.9

1.9

7.5 4.0 22.6 100.0

155

04 HOURS (L.S.T.) 100

200

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND

(FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

73-77

WILLOW GROVE, PENNSYLVANIA

WEATHER

17 - 21	7.21 22.27	
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WWW

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NUMBER	
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7	
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TOTAL	

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39.4

21.3

SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

SURFACE WINDS

E

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

73-77

14793

0

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0

0

ALL WEATHER

NOURS (L.S.T.)

DC ...

CONDITION

SPEED (KNTS) DIR.	£:-	9.7	7 - 10	11 . 16	17 . 21	22 - 27	28 . 33	34 - 40	4.4	48 - 55	%	*	MEAN WIND SPEED
z	1.9	2.6	9.	9.								5.8	4.9
NN	1.3	5.6										3.9	3.8
2	1.3	1.9	1.9	9.								5.8	6.8
ENE	1.3	3.9	9.									5.8	4.7
-	1.9	2.6		9.								5.2	
ESE	9.	9.										1.3	3.5
35	9.	1.3										1.9	3.3
SSE	9.	9.										1.3	3.5
•	2.6	1.3	1.3	9.								5.8	5.7
SSW	1.3	1.3	9.									3.2	4.8
3K	9.	1.9										2.6	4.5
WSW	1.3	1.9										3.2	4.2
*	1.3	10.3										11.6	4.4
WNW	2.6	1.1	5.6	0.	9.							14.2	6.3
¥	9.	1.3	0.	9.								3.2	7.4
NNW	2.6	4.5	5.6	9.								10.3	5.8
VARBL													
CALM	\bigvee	\bigvee	X	X	\bigvee	14.8							
	22.6	46.5	11.0	4.5	9.							100.0	4.5

111

155

TOTAL NUMBER OF OBSERVATIONS

WIND SPEED

7.1

SURFACE WINDS

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NOVES CLST.

DC-T

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

(FROM HOURLY OBSERVATIONS)

*ILLOX GROVE, PENNSYLVANIA

14793 STATION

0 0

73-77

ALL WEATHER

YEARS

SPEED (KNTS) DIR.

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COMDITION

8.4 5.6 9. 9.0 6.9 8.4 3.9 3.9 5.8 12.3 8.4 8.6 2.6 100.0 × 8 48 - 55 . 47 7 34 - 40 28 . 33 22 - 27 0 . 6 17 - 21 1.3 .6 9. 9. 3.5 13.5 1.3 11 . 16 3.9 5.6 2.0 2.6 1.9 1.9 32.3 1.3 7 - 10 3.9 3.9 9.1 9. 4.5 2.6 1.3 35.5 4.6 3.2 1.9 1.3 9.6 15,5 9. 1.3

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9.8

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VARBL

CALM

WSW

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TOTAL NUMBER OF OBSERVATIONS

155

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SMOS DIRNAVOCEANMET

3.6

3.2

4.5 1. 1.9 1.3

MEAN WIND SPEED

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14.8 10.3

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12.9

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3.2

100.0

WINDS SURFACE

18

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

000

(FROM HOURLY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

73-77

14793

0

0

YEARS

13 HOURS (L.S.T.)

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WEATHER

11 - 16

7 - 10

4.6

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SPEED (KNTS) DIR.

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3.2

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TOTAL NUMBER OF OBSERVATIONS

155

DIRNAVOCEANMET

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MEAN WIND SPEED

2

33

28

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11 - 16

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4.6

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SPEED (KNTS) DIR.

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1.3 3.2

9.

6.4 6.8 5.1

9.2 7.3

SURFACE WINDS

2

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77 ALL WEATHER

16 HOURS (L.S.T.)

UCT

MILLOW GROVE, PENNSYLVANIA

YEARS

COMDITION

5.6 3.9 3.9 5.5 3.2 5.2 13.5 11.6 7.1 100.0 * 12 . 55 4 . 47 7 4

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1.3 3.5 1.3

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155

TOTAL NUMBER OF OBSERVATIONS

9.

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SMOS DIRNAVOCEANMET

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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14793

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6.2 2.0

MEAN WIND SPEED

0.4 %

3.9

6.8 4.5 6.4 3.5

3.9

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

YEARS

ALL WEATHER

19 HOURS (L.S.T.)

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- 1	
- 1	
- 1	
-1	
-1	
-1	

SPEED (KNTS) DIR.

NN Z Z

z

8 Al																	X	
8 . 55																	X	
41 . 42																	X	
34 - 40																	X	
28 - 33																	X	
22 - 27																	X	
17 . 21		9.													3.	9.	X	1.0
11 . 16								9.						9.	9.	9.	X	2.6
7 . 10	1.9	9.		1.3	1.3	9.		9.	ġ.	1.9	9.			1.3	1.9	1.9	X	3.4.8
9.+	1.3	1.3		2.6	3.2	2.6	7.0	5.6	1.9	1.9	4.5	3.5	5.2	4.5	3.2	5.6	X	42.4
1.3	9.	1.3	1.3		1.9		9.		1.3	1.3	1.9	1.9	5.6		1.3	1.9	X	. 8

111

4.1 6.1

1.5 2.5

WNW

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ESE SE SSE SSE

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VARBL

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TOTAL NUMBER OF OBSERVATIONS

155

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100.0

20.0

4

DIRNAVOCEANMET SMOS

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

0

WIND SPEED

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28 . 33

. 27 22

17 - 21

11 . 16

7 - 10

1.3

SPEED (KNTS) DIR.

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5.0 5.2

1.3

4.0

4.9

5.4 5.9

SURFACE WINDS

3

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

ALL WEATHER

22 HOURS (L.S.T.)

1

YEARS

7.1 20.02 100.0

TOTAL NUMBER OF OBSERVATIONS

155

4.0

247

DIRNAVOCEANMET SMOS

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

14793

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VARBL CALM

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SSW

WSW WSW

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1240

TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

SURFACE WINDS

100	MONTH	ALL	HOURS (L.S.	
	YEARS			
73-77		ALL WEATHER	CLASS	CONDITION
LOW GROVE, PENNSYLVANIA	STATION NAME			
IN GROVE,				

MEAN WIND SPEED	5.4	5.4	5.4	5.2	5.6	5.0	5.6	5.4	5.1	5.8	5.6	5.0	5.1	7.3	7.7	7.1			5.1
×	5.3	0.4	4.4	5.6	5.2	5.4	1.6	2.3	4.2	3.5	5.1	5.4	4.6	6.6	8.1	8.7		14.5	100.0
% Al																		X	
48 - 55						4												X	
41.47																		\bigvee	
34 - 40																		\bigvee	
28 - 33																		\bigvee	
22 - 27																•1		X	
17 - 21			• 1											.3	.2	-		X	0
11 . 16	e.	.2	.2	.2			.2	.2		.2	.3	7.	.2	1.0	1:1	1.3		X	0 4
7 . 10	1.0	6.	1.0	1.0	1.2	0.	.3	5.	9.	1.0	1.0	0.1	1.9	2.8	2.7	5.9		X	300
*;	2.3	1.8	1.9	2.8	2.6	1:0	9.	.3	1,8	1.4	2.7	5.9	5.5	8.4	2.3	2.7		X	27 0
<u>.</u> :	1.5	1.0	1.3	1.6	1.1	4.	.5	30	1.5	9.	1.0	1.5	2.1	6.	1.2	1.7		X	0.
SPEED (KNTS) DIR.	z	NN.	WZ.	ERE		ESE	SE	SSE	•	SSW	AS.	WSW	>	WWW	¥	MNN	VARBL	CALM	

DIRNAVOCEANMET SMOS

20

14793

150

TOTAL NUMBER OF OBSERVATIONS

DIRNAVOCEANMET SMOS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

SURFACE WINDS

NON	итион	10	HOURS (L.S.T.)	
73-77	YEARS	ALL WEATHER	CLASS	CONDITION
TH GROVE, PENNSYLVANIA	STATION NAME	ALL		8

SPEED (KNTS) DIR.		•	7 - 10	91 - 11	17 - 21	22 - 27	28 - 33	34 . 45	41.4	48 - 55	8	*	MEAN WIND SPEED
z	.7	2.0		1.								3.3	
NNE		2.0										2.0	
NE	.7	.7										1.3	
ENE	7.	.7	.7	1.								2.7	
3		2.0	2.0	.7								4.7	
252	.7	1.										1.3	
38	1.3	2.0										3.3	
358	.7												
s	1.3	2.7										4.7	
ASS	2.0	1.3	2.0									5,3	
AS.	2.7	3.3										6.7	
WSW	2.7	. 7		.7								4.0	
*	2.7	8.7	3.3	.7								15.3	
WAW	1.3	6.7		1.3	. 7							12.7	9.9
WW	2.0	2.7		.7								0.8	
NNW		.,	2.0	1.3								4.0	
VARBL													
CALM	\bigvee	20.0											
	19.3	36.7	16.0	7.3	.7							100.0	

14793

0

0

5.5

10.0

MEAN WIND SPEED

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77

0.0000 10.0 2.0 20.0 3.3 × VI S . 55 4 . 47 7 34 - 40

3.7

5.3

6.3 7.2 4.6

4.7

.

2.0

0 - 1 - 2 - 2 - 2

WSW

3.K

WWW

*

VARBL

CALM

N S

1.3 2.0

2.0 1.3 2.7 0.9

18.7

32.0

22.7

TOTAL NUMBER OF OBSERVATIONS

150

4.5

100.0

1880

SMOS DIRNAVOCEANMET

12170 SE181

DA NOVES (L.S.T.)

NON

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3

28

22 . 27

11 . 16

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SPEED KNTS)

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X X X

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SSW

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ALL WEATHER

WILLOW GROVE, PENNSYLVANIA

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7 - 10 4.6

14793

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

WIND SPEED

4.1

5.000

NA WAN

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SSW WSW WSW

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- 3 × 3

VARBL

CALA

150

TOTAL NUMBER OF OBSERVATIONS

SURFACE WINDS

3

PERCENTAGE FREQUENCY OF WIND

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

14793

WEATHER

07 HOVES (1.5.T.) NON

COMBITION

*	2.0	2.7	2.0	2.7	5.3	1.3	1.3	2.7	3.3	4.0	7.3	9.3	17.3	8.0	8.0	8.0		14.7	
8																	interes.	\bigvee	THE CO.
48 - 55																		X	
41.4																		\bigvee	
34 . 40																		\bigvee	
28 - 33																		\bigvee	
n . n																		\bigvee	
17 - 21																		X	
11 . 16	1.			.7	1.						1.	. 7	2.0	1.	1.			X	
7 . 10	7.	.7	.7		1.3			.7	1.3		1.	1.	2.0	2.0	1.3	2.7		X	,
• •	T	1.3	1.3	2.0	1.3	. 7	. 7	1.3	1.3	2.0	1.	3.3	7.3	4.7	4.0	0.4		X	
:	7.	.7			2.0	1.	1.	. 7		2.0	5.3	4.7	0.9	1.	2.0	.7		X	-
Katawa	-	-	The same	-	mag	-	2022	-	MAN TO	-	1000	other	-	1000	and the	-	north de		252

z Z Z Z

SPEED MENTS)

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND

DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

ALL WEATHER

NOURS (L.S.T.)

NON

CONDITION

SPEED (KNTS) DIR.	 	• •	7 . 10	11 · 16	17.21	n · n	28 - 33	34 . 45	41.0	8 . 8	%	*	MEAN WIND SPEED
z			1.3	1.3								2.7	10.8
NNE		.7	.7									1.3	7.0
Z		1.3	1.3									2.7	7.0
ENE	1.	1.3	5.0									0.4	6,8
			2.7		.7							0.4	9.7
ESE		2.0										2.0	4.0
35			1.3									2.0	6.3
SSE		1.3	2.0									3.3	7.2
		2.0	1.3									3.3	9.9
SSW		1.3	1.3									2.7	7.5
*S		2.7	2.7									5.3	6.9
WSW	1.3	3.3	2.7	1.		.7						8.7	8.1
*	5.3	3.3	0.4	2.7								15.3	4.9
WNW		3.3	0.4	4.0								12.0	10.1
¥		2.7	0.9	2.7	. 7							12.0	9.6
NNN	1.3	2.7	5.3	1.3	. 7							11.3	7.9
VARBL													
CALM	\bigvee	\bigvee	\bigvee	X	\bigvee	7.3							
	8.7	29.3	38.7	12.7	2.7	.7						100.0	7.4
			l	ı	l	۱							I

TOTAL NUMBER OF OBSERVATIONS

150

DIRNAVOCEANMET SMOS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

14793

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0

SURFACE WINDS

2

PERCENTAGE FREQUENCY OF WIND

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

14793

DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

YEARS 73-77 ALL MEATHER CONDITION WILLOW GROVE, PENNSYLVANIA

13 HOURS (L.S.T.)

NON

SPEED (KNTS) DIR.	:	• •	7 . 10	11 . 16	17 - 21	n · n	28 - 33	34 . 46	41 - 47	48 - 55	% Al	*	WIND SPEED
z	.,		2.0									3.3	7.0
W.	.7	1.3	1.3									3.3	0.0
¥	. 7		.7									1.3	5.0
ENE		2.0	.7									2.7	6.0
-	7.		2.7	1.3								4.7	9.6
ESE	.,	. 7	.7									2.0	
35		1.3										1.3	5.0
SSE	1.3		2.7									0.4	
•		. 7	. 7	.7								2.0	
SSW		4.7	3.3	2.7								10.7	8
AS.	.,	1.3	2.0	.7								4.7	7.6
WSW		1.3	2.0	1.3								5.3	7.
*	.7	3.3	6.6	3.3		.7						18.0	9.8
WWW	.7	0.4	2.0	3.3	1.							10.7	0.6
ž		2.7	8.0	2.7								13.3	9.0
NNN			0.9	3.3								6.3	10.2
VARBL													
CALM	X	X	X	X	X	X	\bigvee	\bigvee	\bigvee	\bigvee	\bigvee	3.3	
	7.3	24.0	46.0	19.3	1.3	- 1						100.0	8.2

DIRNAVOCEANMET SMOS

Ē

150

TOTAL NUMBER OF OBSERVATIONS

WIND SPEED

SURFACE WINDS JAN 78

5.2 4.0 7.3

6.3

7.0

6.1

4.8

SURFACE WINDS

2

PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

73-77

WILLOW GROVE, PENNSYLVANIA

14793

0

YEARS

ALL MEATHER

16 HOURS (L.S.T.)

Se :

CONDITION

17 - 21

11 . 16

7 - 10

1.3

SPEED (KNTS) DIR.

0

0

0

Z Z ZZ

Z

2.0

2.0

1.3

w

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1.3

4.7

1.3

S 22 32

0

2.0 13.3 2.0 3.3 14.7 6.7 * 12 48 - 55 . 47 7 \$ 2 S 88 . 27 22 . . 7 . .

TOTAL NUMBER OF OBSERVATIONS

183

150

6.9

10000

12.0

36.7

33.3

6.3

0

0

0

1

2.7

2 2 2 2 2 2 2 2 2

WWW 3 2 VARBL CALM

*

1.3

WSW WSW

0

0

SSW

•

0

7.3

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6.0

7.9

8.8

DIRNAVOCEANMET

000

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

3.5 7.5 7.5 7.0 8.0 5.9

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77

MILLOW GROVE, PENNSYLVANIA

YEARS

ALL WEATHER

CONDITION

19

NON

MEAN WIND SPEED 5.3 8.0 1.3 5.3 15.3 14.0 100.0 7.3 12 48 . 55 41 - 47 34 - 40 28 . 33 22 . 27 . 1.3 17 . 21 1.3 4.7 . 11 . 16 2.00 1.3 23.3 2.7 7 . 10 2 2 3 3 7 3 3.3 32.7 1:3 24.0 1.3 2.0 22.07.8 1.3 1.3 WWW Z 3 3 VARBL CALM SSW WSW ZZ 25 3 3 3 * z -•

3.6

4.2

5.3

5.3

TOTAL NUMBER OF OBSERVATIONS

150

5.0

SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

-

2.0

3.3

0.4.4.6.9

4.8

13.3

=

MEAN WIND SPEED

SURFACE WINDS JAN

PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

Ë

SURFACE WINDS

73-77

WILLOW GROVE, PENNSYLVANIA

YEARS

2.2 HOURS (1.5.T.)

NON

WEATHER CLASS

ALL

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SPEED (KNTS) DIR.

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z

2 2

% Al																	\setminus	
48 - 55																	\setminus	
41 - 47																	\bigvee	
34 - 40																	\bigvee	
28 - 33																	\bigvee	
22 - 22				.1													\bigvee	
17 - 21																	\bigvee	7.
11 . 16					1.3					1.3	1.3			2.0	.7	1.3	X	7.8
7 - 10				1.3	1.3	1.3	. 7		1.3		4.		3.3	1.3	7.3	. 7	X	20.7
4.6	2.0	1.3		1.3		1.	1.3	0.4	1.3	3.3	2.7	3.3		4.7	2.7	2.0	X	35.3
1.3	1.3		1.3					1.	2.0	2.0	1.3	2.0	6.7			2.7	X	20.7

SSW

25 25

\$3E . WSW

X.S

WWW NN. VARBL

*

CALM

TOTAL NUMBER OF OBSERVATIONS

150

5.2

100.0

DIRNAVOCEANMET SMOS

20

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

121 PS 18181

5702 SURFACE WINDS JAN 78

SURFACE WINDS

450

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

(FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

14793

0

0

0

0

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0

OF

YEARS

ALL WEATHER

ALL HOURS (L.S.T.)

NOV.

CONDITION

Ī	-												
	::	•	7 . 10	11 . 16	17 - 21	22 - 27	28 - 33	34 - 40	41 . 47	48 - 55	8	*	MEAN WIND SPEED
+	9.	7.	7.	3.								2.5	6.6
=	3.	1.3	9.									2.3	5.6
-	.5	3.	.5									1.8	5.3
-	.2	1.2	6.	.2								2.7	7.9
-		1.	1.9	6.	.2							4.4	8.4
-	3.	1.1	S.	1.								2.1	5.4
-	5.	1.0	.3	7.								1.8	5.3
-	8	1.3	0	.2								3.2	5.2
-	1.0	1.4	6.	.2								3.5	5.5
-	1.5	5.6	1.6	• 5								6.2	5.8
-	2.1	2.0	1.4	.5								0.9	5.6
-	2.2	3.0	1.2	4.		-						7.0	5.5
-	3.7	6.1	4.3	1.5	2.	7.						15.9	6.3
-	. 7	4.4	2.7	1.9								10.2	7.9
-	1.0	2.5	5.1	1.7	• 2							10.5	8.0
	1.2	2.1	3.0	1.1	• 5							7.5	7.5
==													
	X	\bigvee	\bigvee	X	X	X	X	\bigvee	\bigvee	\bigvee	\bigvee	15.4	
-	17.4	32.4	26.6	4.4	1.2	.2						100.0	5.8
4		۱											

E

DIRNAVOCEANMET SMOS

1200

TOTAL NUMBER OF OBSERVATIONS

8.9 4.5

MEAN WIND SPEED

*

12

48 - 55

41 - 47

34 - 40

28 - 33

. 27 2

17 - 21

11 . 16

7 - 10

4 . 6

1.3

SPEED (KNTS) DIR.

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2.6

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4.5 5.6 9. 1.3 2.6

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9.6

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5.2

5.1 8.0

> 1.9 8.4

5.6

8.8

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• 9.

3.2

3.9

3.2

1.3

WWW ¥ × × VARBL CALM

*

2.6

WSW

0

0

SK

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5.6

5.1

20.6

SURFACE WINDS

E

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

14793

0

0

73-77

ALL WEATHER

YEARS

NOUNS (LS.T.)

DEC

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1.9

1.9

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1.3

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9.

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9.

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000

1.3

4.5

1.3

SSW

TOTAL NUMBER OF OBSERVATIONS

155

5.3

100.0

9.

1.9

0.6

21.3

29.0

17.4

0

SMOS DIRNAVOCEANMET

95

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

SURFACE WINDS

200

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77 ALL MEATHER

WILLOW GROVE, PENNSYLVANIA

YEARS

04 HOURS (L.S.T.)

DEC

COMPITION

SPEED (KNTS) DIR.	.:	• •	7 . 10	11.16	17 . 21	22 - 27	28 - 33	34 · 40	41.47	48 - 55	% AI	×	MEAN WIND SPEED
z	0.	5.5		9.								3.9	0.9
N.		3.8	1.3	9.								5.2	6.8
¥	9.		1.3									3.2	6.2
ENE		1.3		1.9								3.2	10.4
	9.	1.3	9.									2.6	4.3
383	1.3		9.									1.9	4.7
*	1.5	9.										2.6	3.0
358	0.	9.	9.	9.								2.6	7.5
		1.3										1.3	4.5
SSW		1.3	1.9		9.							3.9	9.3
AS.		1.9	9.									2.6	6.3
WSW	1.9	1.9	1.9									5.8	5.6
*	2.6	6.5	9.	5.6								12.3	6.2
WWW	1.3	3.8	6.5	1.3	9.	9.						13.5	8 . 4
ž	1.9	3.2	3.5	9.								0.6	6.3
NNN	9.	5.6	5.2									8.4	7.1
VARBL													
CALM	\bigvee	X	X	X	X	\bigvee	X	\bigvee	X	X	\bigvee	18.1	
	14.2	32.9	24.5	3.4	1.3	9.						100.0	5.5

DIRNAVOCEANMET SMOS

1888

155

TOTAL NUMBER OF OBSERVATIONS

0

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

14793

SURFACE WINDS

=

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

(FROM HOURLY OBSERVATIONS)

73-77 ALL WEATHER

MILLOW GROVE, PENNSYLVANIA

14793

07 HOURS (1.5.T.)

DEC

COMDITION

E

155

TOTAL NUMBER OF OBSERVATIONS

7.7

WIND SPEED

3000

8.1

10.0 10.2

2016

155

TOTAL NUMBER OF OBSERVATIONS

000 4 600

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77 ALL WEATHER

WILLOW GROVE, PENNSYLVANIA

14793

0

YEARS

10

DEC

COMBITION

3.2 6.5 1.3 5.8 8.4 14.8 7.7 5.8 7.1 100.0 8 . 55 4 41 . 47 34 - 40 28 - 33 . 27 22 9. 6. 0 9 . 21 1 6.1 00 1.9 2.6 17.4 9. • 11 . 16 5.6 1.3 3.5 1.3 6. 2.6 1.9 4.5 1.9 34.2 7 - 10 1.9 3.0 32.9 3.2 1.9 3.5 9. 2.6 1.9 9.4 5.8 9 1.3 0 9. 0 0 1.3 SPEED (KNTS) DIR. WSW * XX N N VARBL CALM NN Z. SSW 25 25 SSE 3

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0

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

DIRNAVOCEANMET

155

TOTAL NUMBER OF OBSERVATIONS

SURFACE WINDS JAN 78

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

20

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

E

SURFACE WINDS

73-77

WILLOW GROVE, PENNSYLVANIA

14793 STATION

0

YEARS

ALL WEATHER

1.3 HOURS (L.S.T.)

DEC

CONDITION

SPEED (KNTS) DIR.

z z z z

Q

SSE SSE

WIND SPEED	4.0	7.9	0.4	5.6	6.3	0.4	11.0	6.3	7.1	10.6	6.8	6.5	10.4	10.6	10.3	10.7		8.2
×	6.9	4.3	1.3	5.00	5.8	1.3	9.	1.9	5.8	5.8	6.9	5.2	0.6	12.3	10.3	12.3	5.2	100.0
8 Al																	\bigvee	
48 - 55																	X	
41 - 47																	\bigvee	
34 - 40																	\bigvee	
28 - 33																	X	
22 . 27																	X	
17 . 21										0.				1.3		1.3	X	3.2
11 . 16		1.3		9.	1.3		0.	9.	9.	1.9	9.	9.	4.5	5.8	4.5	5.5	X	28.4
7 . 10	2.6	9.		9.					3.2	1.9	2.6	1.3	3.2	1.9	4.5	3.9	X	26.5
• •	2.6	1.9	9.	3.5	3.5	9.		9.	1.3	1.3	1.9	3.2	1.3	2.6	1.3	1.9	X	27.7
1.3	1.3	9.	9.	1.3	1.3	9.		9.	9.		1.3			9.			X	0.6
	_		-	_	_	_	1_		-	1	1	1	1	_	_			_

WNW

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WSW

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SSW

S

VARBL

CALM

XXX

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SURFACE WINDS

2

16 HOURS (L.S.T.)

DEC

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

73-77 ALL WEATHER MILLOW GROVE, PENNSYLVANIA

YEARS

CONDITION

		7 . 10	11 - 16	17 . 21	22 . 22	28 - 33	34 . 45	41 - 47	48 - 55	% AI	*	WEAN WIND SPEED
	.9 1.3	1.3	1.3								5.8	6.6
		9.	1.3								1.9	10.0
	.3 3.2										4.5	4.3
	.6 1.9	0.	9.	1.3							5.2	9.8
	9.	1.3									1.9	7.
	.3	9.									6.1	0.4
	9.	9.									1.3	7.0
	1.3 1.3										2.6	0.4
	6.8 9.	2.6		9.							7.7	7.2
SSW	.6 5.2	1.3		9.							7.7	0
	6.1 9.	1.9									4.5	9
wsw 1	.3	1.3	1.9								5.2	8.4
*	3.2	5.8	0.								4.6	7.
www 1	.3 2.6		3.9	9.	9.						13.5	1001
NW I	.3 3.2	5.2	3.2	1.3							14.2	9.2
NNW	2.0	1.9	5.6								7.1	9.1
VARBL												
CALM	$\langle \rangle$	X	X	\bigvee	5.2							
12.3	.3 32.3	29.7	15.5	4.5	9.						10000	7.5

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

14793

8088

155

TOTAL NUMBER OF OBSERVATIONS

DIRNAVOCEANMET SMOS

2.6 5.6 5.5

MEAN WIND SPEED

71

22 - 27

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11 - 16

7 - 10

..3

SPEED (KNTS) DIR.

9.

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1.3

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5.0

8.3

1.9

8 8 8

3.9 3.5 8.4 3.5

8.00

11.6

1.3

2.6

3.5

6.1

200

WNW

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WSW

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1.9 3.9

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9.

SSW

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XXX VARBL

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7.5

7.7

18.1

9.4

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

(FROM HOURLY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

73-77

NOURS (L.S.T.)

DEC

WEATHER CLASS

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COMBITION

9

0

0. 1.9

3.9 5.6

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0

TOTAL NUMBER OF OBSERVATIONS

155

5.7

100.0

3.0

11.0

24.5

28.4

15.5

CALM

DIRNAVOCEANMET

1350

0

14793

20

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

22 HOURS (L.S.T.)

DEC

155

TOTAL NUMBER OF OBSERVATIONS

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

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(FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

73-77 ALL WEATHER WILLOW GROVE, PENNSYLVANIA

14793 STATION

0

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YEARS

CONDITION

MEAN WIND SPEED	7.6	0.9	9.5	11.3	3.8	4.3	8.0	5.4	7.8	4.5	4.9	5.7	6.3	9.6	6.3	7.6			5.5
*	3.2	3.9	1.3	4.5	3.2	2.6	1.3	4.5	3.2	3.9	4.5	3.8	4.6	13.5	7.7	5.8		21.3	100.0
%																		\bigvee	
48 - 55																		\bigvee	
41 - 47																		\bigvee	
34 - 40																		\bigvee	
28 - 33																		\bigvee	
22 - 27				9.										9.				\bigvee	1.3
17 . 21																		X	
11 - 16		•	9.						1.3				1.9	2.6	9.	1.3		X	0.6
7 . 10	1.9	0.		3.9		9.	9.	1.9	9.	9.	1.3	2.6	2.6	6.5	2.6	1.3		X	27.7
:	1.3	1.3			1.3	9.	9.	9.	ç.	1.9	1.9	5.6	3.2	3.9	3.2	3.2		X	26.5
::		1.3	0.		5.1	1.3		1.9	9.	1.3	1.3	9.	1.9		1.3			X	16.2
SPEED (KNTS) DIR.	z	N N	7	FE		ESE	35	386	•	SSW	*S	WSW	*	WWW	¥	NNW	VARBL	CALM	

SURFACE WINDS JAN 78

SURFACE WINDS

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PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

20

WILLOW GROVE, PENNSYLVANIA

14793

0

0

73-77

YEARS

ALL WEATHER

ALL HOURS (L.S.T.)

DEC

COMDITION

SPEED (KNTS) DIR.

0

0

0

SSW SW

s

WIND	7.3	7.1	5.8	8.2	4.9	5.0	6.1	9.9	6.5	7.6	1.0	6.2	6.8	9.5	8.2	8.0			6.3
*	4.8	3.2	3.0	4.9	0.4	1.7	1.7	2.5	4.3	4.5	4.6	5.7	10.6	11.8	10.2	7.9		14.7	100.0
% Al																		\bigvee	
48 . 55																		X	
4.0																		\bigvee	
34 . 46																		\bigvee	
28 · 33																		\bigvee	
22 . 27				.2										.2				\bigvee	4.
17 - 21	.1		•	.2										1.	.3	.2		\bigvee	2.2
11 . 16	9.	9.	.2	8.	.5.		.2	9.		9.	.3	4.	1:1	3.0	2.1	1.9		X	13.8
7 . 10	1.7	1.0	S.	1.1			5.	4.	1.6	1.2	1.5	1.9	3.6	4.4	0.4	2.0		X	26.7
• •	1.8	1.2	1.2	1.9	2.0	9.	.5		1.1	1.9	1.6	2.7	3.5	2.5	2.7	3.0		X	29.5
::	9.	.5	1.0	9.	9.	9.	9.	80	9.	.5	1:1	1.	1.1	6.	1.1	.7		X	12.7
	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	==		-

WWW WSW X

N. W. VARBL

CALM

SMOS DIRNAVOCEANMET

=

1240

TOTAL NUMBER OF OBSERVATIONS

5.8

MEAN WIND SPEED

6.5

5.9

5.6

WINDS SURFACE 3000

PERCENTAGE FREQUENCY OF WIND (FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

73-77

YEARS

MEATHER

ALL HOURS (LST.)

ALL

-:

SPEED (KNTS) DIR.

Z

z

0 0

00

3442

1000

1.0

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Z

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3.0 5.7 12.3 9.9 12.9 100.0 × 12 . 55 4 41 - 47 34 . 40 0 9 0 0

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1262465

1.3 1.6

1.9

1.2 1.3

9.

3 3 3

-• . 1

0

1.4

2.3

1.4

WSW WSW

SSW

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3.3

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3.5

WWW

*

VARBL

CALM

¥ ×

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1.2

9.5

25.0

34.8

16.3

388

5.8

5.7

7.7

TOTAL NUMBER OF OBSERVATIONS

14608

5.7

123

SMOS DIRNAVOCEANMET 7.1

3.7

9.0

5.2 12.2

-

2.10

1.36 1.6

1.5

2.2

N

Z E

0

0

5.5 1.6

5.1

3.9 1.8

1.4 3 1.5

ESE

SSE

2

8.2 7.3 6.2

6.1 5.1

6.2

6.2 6.8 5.3 4.8

6.6

MEAN WIND SPEED

×

28 . 33

22 . 27

17 - 21

11 . 16

7 - 10

4.6

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SPEED KNTS)

PERCENTAGE FREQUENCY OF WIND

SURFACE WINDS

(FROM HOURLY OBSERVATIONS) DIRECTION AND SPEED

WILLOW GROVE, PENNSYLVANIA

STATION MAME

INSTRUMENT

73-77

YEARS

MOURS (LST.

MORE CIG 200 TU 1400 FT W/VSBY 1/2 MI OR MORE, o o AND/OR VSBY 1/2 TO 2-1/2 MI W/CIG 200 FT 128 . 55 4 . 47 7 34 - 40

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1.4 6.7

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6.8

3.1

TOTAL NUMBER OF OBSERVATIONS

2218

5.7

100.0

0

5

1.2

9.5

25.3

33.5

16.8

13.4

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SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NC

NWSD, Federal Building Asheville, N. C.

ART D

CEILING VERSUS VISIBILITY

equal to or greater than 10 miles. Data are derived from 3-hourly observations, and three sets of tables are This summary is a bivariate percentage frequency distribution by classes of ceiling from zero to equal to or greater than 20,000 feet and as a separate class "no ceiling", versus visibility in 16 classes from zero to presented as follows:

- 1. Annual all years and all hours combined
- . By month all years and all hours combined
 - By month by standard 3-hour groups

station was meeting or exceeding any given set of minima may be determined from the figure at the intersection of the appropriate ceiling column and visibility row. Several examples in the use of these tables are shown reference to the horizontal row of totals at the bottom of the page. The percentage frequency for which the Due to the cumulative nature of this presentation, it is possible to determine the percentage frequency of occurrence for any given limit of ceiling or visibility separately, or in combination of ceiling and visiferring to totals in the extreme right hand column. Also, visibility may be determined independently by bility. The totals progress to the right and downward. Ceiling may be determined independently by reon pages 2 and 3 below. U. S. Weather Bureau and Navy stations did not report ceilings within the range 10,000 feet and higher prior to January 1949. Summaries prepared from data for these stations using the earlier period and data subsequent Beginning in July 1948 for Air Force stations and January 1949 for USWB and U. S. Navy stations the "no ceiling" category consists of observations with less than 6/10 total sky cover and those cases where total for these stations will be eliminated from the summary. For Air Force stations, the "no ceiling" category to January 1949 will be modified to limit ceilings to 10,000 feet. Short periods of record prior to 1949 includes clear and scattered conditions, and ceilings above 20,000 feet for period through June 1948. sky cover is 6/10 or more, but not more than 1/2 of the sky cover is opaque.

EXAMPLES FOR USE OF CEILING VERSUS VISIBILITY TABLES IN THIS TABULATION

	N N	2		95.6				98.1		100.0
	× 1	(1000					
	91/5 ≥									
	٧١ ٪									
	% Al)	1	,						
	% Al									
S	71		T					4.72		98.3
VISIBILITY (STATUTE MILES)	% t <1	3	1							
BILITY (ST.	۷۱ ۱۷		T							
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	≥ 2 %	7(T							
	N N	7		91.0						7.56
	VI		1							
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	01 11									
CEILING	(FEET)	NO CEILING	1901	> 1500	V IV	> 800	VI VI 008	1	% % % %	VI VI 8 o

Read ceiling values independently of visibility under column at right headed > 0. For instance, from the table: Ceiling > 1500 feet = 92.6%.

Ceiling > 500 feet = 98.1%. EXAMPLE # 1

Read visibilities independently of cellings on bottom line opposite > 0. From the table: Visibility > 3 miles = 95.4%. Visibility > 2 miles = 96.9%. Visibility > 2 miles = 96.9%. Visibility > 1 mile = 98.3%. EXAMPLE # 2

To obtain combinations of ceiling with visibility, read figure at intersection of the two categories; i.e.: Ceiling > 1500 feet with visibility > 3 miles = 91.0%. EXAMPLE # 3

PART D

ADDITIONAL EXAMPLES

EXAMPLE # 4

Thus, to obtain the percentage of observations with ceiling < 1500 feet and/or visibility < 3 miles, subtract the value read from the table at the intersection, which is 91.0, Values below minimums stated in the table may be obtained by subtracting the value given from 100.0. The answer 9.0 is the percentage of observations with ceiling < 1500 feet and/or visibility < 3 miles. In the table from 100%.

Likewise, the percentage of observations with ceiling < 500 feet and/or visibility < 1 mile is 2.6, obtained by subtracting 97.4 from 100.0.

EXAMPLE # 5

To find the percentage of observations falling within the two categories given in example above, subtract the value read from the table for the first set of limits from the value in the table for the second set of limits. The difference will be the percentage of observations meeting the lower set of limits, but not meeting the higher set of limits.

The value 91.0 read from the table at the intersection of > 1500 feet with > 3 miles, subtracted from 97.4 read from the table at the intersection of > 500 feet with > 1 mile is equal to 6.4%. Thus; 6.4 percent of the observations meet the criteria: "ceiling > 500 feet with visibility > 1 mile, but < 3 miles; or ceiling > 500 feet, but < 1500 feet with visibility > 1 mile."

Since these tabulations are prepared in several ways including by month, by 3-hour groups it is possible to determine diurnal variations of ceiling and visibility limits as well as probabilities of various ceiling-visibility combinations.

PART D

SKY COVER

This summary is prepared from 3-hourly observations and is a percentage frequency distribution of total sky cover by tenths, plus mean sky cover, and total number of observations. It is presented in two tables as follows:

- 1. By month and annual all hours and all years combined.
- 2. By month by standard 3-hour groups.

Sky cover (total cloud amount) was not reported by U. S. Services until mid 1945. Data, when Navy stations until 1948 or 1949. Weather Bureau stations recorded total cloud amount in remarks beginning sometime in 1945, but few stations have punched data prior to 1948. This available, were punched for Air Force stations beginning in 1946, but were not available for summary will, of course, be limited to period of available data. NOTE:

Some sources of punched data used for this summary report cloud amounts in oktas. These have been converted to tenths prior to summarizing, and notation is made on the form to indicate that data were originally reported in oktas. The manner of conversion is given below:

TENTHS	o u wa wa wa	4
		openien)
OKTAS	0-10m2m0-0	5

CEILING VERSUS VISIBILITY

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

73-77

(FROM HOURLY OBSERVATIONS)

PERCENTAGE FREQUENCY OF OCCURRENCE

JAN MONTH 0

22

HOURS (L S.T.)

82.6 6.26 95.9 92.9 93.6 76.8 81.9 85.2 84.5 61.3 67.7 89.7 92.3 •09 ٨١ 74.2 82.0 85.2 92.3 6.26 93.6 60.99 61.3 60.99 75.5 76.8 81.9 1.68 63.2 64.5 66.5 67.7 78.7 84.5 60.7 60. 60.7 66.5 93.6 66.5 74.2 92.9 92.9 61.3 63.2 66.5 66.5 75.5 64.5 67.7 76.8 78.7 81.9 82.6 84.5 85.2 85.2 89.7 92.3 56.1 60.7 60.7 60.7 89.7 91.0 92.3 92.3 60.7 76.8 82.6 75.5 65.6 6.76 64.5 74.2 66.5 91.0 92.3 61.3 63.2 81.9 83.9 84.5 89.0 89.7 60.7 89.0 89.7 60.1 67.7 69.7 2 84.5 84.5 84.5 8.46 74.2 76.8 91.6 81.9 75.5 92.3 85.3 91.6 91.6 66.5 66.5 5.99 61.3 63.2 64.5 67.7 78.7 60.7 69.7 60.7 600 60.7 * 89.0 91.6 0.68 0116 8.76 8.96 0.16 74.2 83.9 82.6 92.3 8.96 56.5 75.5 81.9 63.2 66.5 92.3 64.5 66.5 67.7 76.8 50.7 69.1 78.7 60. 60. **VI** 91.6 66.5 66.5 74.2 75.5 81.9 89.0 91.0 9116 92.3 93.6 94.8 96.1 78.7 82.6 83.9 89.0 91.0 96.1 60.7 61.3 69.7 60.7 64.5 67.7 76.1 76.8 60.7 000 66.5 VISIBILITY (STATUTE MILES) 91.0 0.09 65.8 65.8 65.8 67.1 67.1 69.0 69.0 73.6 73.6 0.69 87.7 6.06 0.09 8.76 0.00 0.09 9.59 74.8 83.2 90.3 91.0 62.6 87.7 8.46 60.7 63.6 78.1 6.18 83.9 89.7 81.3 89.7 60.7 87.7 89.7 0.16 63.6 0.09 0.09 76.1 94.8 0.09 65.8 65.8 65.8 65.8 6006 600 60.09 74.8 81.3 81.9 83.2 95.6 93.6 83.9 87.7 78.1 89.7 77 0.69 73.6 76.1 78.1 0.68 90.3 93.6 67.1 87.1 0.09 0.00 0.09 90.3 0.09 62.6 62.6 62.6 65.8 74.8 60.7 81.3 82.0 83.2 0.68 93.6 80.7 89.7 89.7 87.1 ۸I 60.09 0.60 73.6 76.1 32.6 85.2 0.00 0.09 66.5 63.9 8.41 83.2 86.3 65.0 65.8 65.8 18.1 81.3 85.2 86.5 86.5 86.5 67.1 67.1 80.7 63.9 65.8 0.69 65.8 65.8 73.6 83.9 0.09 60.09 0.09 77.4 86.5 0.09 75.5 81.3 83.9 80.0 81.9 85.2 85.2 85.2 85.2 60.7 74.8 85.2 80. ۸I 79.4 0.09 16.1 82.6 82.6 50.4 39.4 80.0 81.3 82.6 83.2 59.4 65.2 72.3 73.6 74.2 78.1 82.6 82.6 29.4 61.9 63.2 65.2 60.5 4.89 78.1 83.2 65.2 81.3 A 4.89 59.4 39.4 65.2 73.6 59.4 59.4 81.9 81.9 0.09 61.9 65.2 72.3 76.1 79.4 81.9 618 81.9 81.9 54.8 63.2 65.2 66.5 74.2 80.0 80.7 78.1 80.7 78.7 13.6 11.6 72.3 15.5 77.4 58.1 58.1 63.9 63.9 70.3 15.5 76.1 77.4 78.7 78.7 78.7 78.7 58.1 58.7 61.9 52.9 63.9 64.5 16.8 78.7 78.7 58.1 78.7 66.3 78.7 78. 00 53.6 55.9 0.09 0.09 0.09 0.09 0.09 51.6 0.09 0.09 96.8 0.00 0.09 0.09 0.09 49.7 0.10 0.00 0.09 0.00 49.7 50.3 52.9 54.5 58.1 39.4 0.09 58.7 49.7 65 NO CEILING 80 88 88 2 20000 18000 12000 4500 1800 88 88 CEILING (FEET) 8 8 8 8 8 0 0 0 0 0 0 0 2000 3500 2000 88 AI ALAI 14 14 MIN AI AI AI AI AI AI

155

TOTAL NUMBER OF OBSERVATIONS

HOR

SOWS DIRNAVOCEANMET

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE

HOURS (L S T.) JAN 40

i

TOTAL NUMBER OF OBSERVATIONS

155

2

20

14793 STATION

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

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8			74.2		80.7	81.3	80.9		86.5	87.1	87.7		1.		88.4	88.4
				6		2.	4.88			89.0	89.7	89.7		6		
8				80.0	82.6	83.2			80.3	91.6	2	92.3	92.3		95.9	92.9
			74.8		2	3	89.7	01.6		92.3	•	65.6	7	3		
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155

TOTAL NUMBER OF OBSERVATIONS

880

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA STATION NAME

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

10 HOURS (LST) AAN

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TOTAL NUMBER OF OBSERVATIONS

155

SMOS

DIRNAVOCEANMET

0

1

0

14793

0

0

0

200

CEILING VERSUS VISIBILITY

*ILLUM GROVE, PENNSYLVANIA

WANAL MEATHER SERVICE DETACHMENT, ASHEVILLE, NC

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

13 HOURS (1 S T.) NAU

CEITING							VISI	VISIBILITY (STATUTE MILES)	ATUTE MIL	ES)						
(FEET)	5 71	۵ ۸۱	87	AI AI	e Al	> 2%	~ 1	۷۱ %۱	VI 71	-	% Al	* 1	Z AI	≥ 5/16	VI NI	٨١
NO CEILING	35.8		38.1	38.1	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7
VI VI 00081 00081	31.0		47.7	47.7		4 4 8 4	00 00	4 8 4	4 4	48.4	4.84	00 00	48.4		48.4	48.4
	31.6		48.4		00		60			00	49.7	6.2		6.6	49.7	52.9
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1	36.1		59.4			22	63.2				63.2	63.2	63.2	2		63.2
VI VI 9000 1 VI	36.8	300	61.3	63.5	m +				90	5 50	65.2	200		5 50	65.2	
VI VI 4000	36.8	400	62.0	64.5	65.8	67.79	67.1	68.4	67.1	- 00	68.4	- &	68.4	68.4	68.4	67.1
3000	40.04	649	72.3	74.2	71.0	76.1			76.8			20	72.3	76.8	72.3	72.3
12 2000	41.9		74.2	76.8	78.1	81.3	31.9	31.9	19.4	81.9		0 -		19.4	81.9	0 -
	43.9	000	77.4	801.0	81.3	84.5	85.6			200	86.5			82.6	86.5	86.5
	43.9	000	78.7					-	-	000		00 0	33 00	00 0	00 0	
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8 8 8	43.9	20	80.0		- 00	90.3	- 2			4.		3 3	94.8			94.8
		000	2000	85.2	89.0	NNN	94.8	95.5	95.5	97.4	98.1	98.1		98.1	1.96	98.1
80	43.9	1	81.3	85.2	89.0	92.9	94.8	95.3	95.5	97.4	98.1	98.1	4.66	4.66	0.00	00.00

TOTAL NUMBER OF OBSERVATIONS

155

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

16

MAD

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING							VISI	BILITY (ST.	VISIBILITY (STATUTE MILES)	ES)						
(FEET)	5 1	٥ ٨١	20	4	e Al	≥ 2%	7	71 71	VI 2/4	-	N N	*	Z AI	≥ 5/16	VI Z	O AI
	31.6	44.5	47.	47.1	47.1		47.1		47.1	47.1	47.1		4/01	47.1		47.1
≥ 20000	34.8	49.7	52.	55.3	52.3	52.3	52.3	52.3	52.3	52.3		52.3	52.3	52.3	52.3	52.3
		4.6.7	52.	52.3		52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
2 16000	34.8	40.7		52.3	52.3	52.3	52.3	52.3	52.3	52.3		52.3	52.3	52.3	52.3	52.3
		51.6	54.	54.2	24.2	24.2	54.2	2.45	2.46	54.2	54.5		24.5	54.2	54.2	54.2
12000	37.4	53.6		56.1	26.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	26.1	56.1	56.1	56.1
1		56.1	1	59.4	29.4	29.4	29.4	59.4	59.4	29.4	29.4			29.4	59.4	59.4
9006	38.1	57.4		60.7	60.7	60.7	60.7	60.7	60.7	60.7	109	1009	60.7	60.7	60.7	1009
1		65.6	1	67.1	67.1		67.1	1.19		67.1	67.1	07.1		67.1	67.1	67.1
1 7000	39.4	62.6		67.1	67.1	67.1	67.1	-	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
1	0.04	63.9	1	0.69	0.69	0.69	0.69	0.69		0			0.69	0.69	5	0.69
2000	41.3	65.8		71.0	71.0	71.0	71.0	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6
	41.3	66.5	10.			2.		2.	72.9			2.	12.9		72.	72.9
0004	41.3	67.1		74.2	74.2	74.8	74.8	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5
	41.3	69.7	1	76.8	76.8	17.4	77.4	18.1	78.1	78.1	78.1	78.1	1.01	18.1	78.1	78.1
3000	43.2	72.9		80.7	80.7	-	81.3	81.9	81.9	81.9	81.9	81.9	81.9	81.9		81.9
	43.9	13.6		61.9	6.18	95.0	82.6	3		83.2	3	83.2	83.2	83.2	83.2	83.2
2000	43.9	76.1		85.8	86.5	87.1	87.1	87.7	87.7	87.7	87.7	87.1	87.7	87.7	87.7	87.7
	43.9	76.1	82.	in		87.1	87.1						87.1	87.7	87.7	87.7
> 1500	43.9	76.1		86.5	87.1	87.7	87.7		88.4		88.4	80	88.4	88.4	88.4	88.4
	6.84	76.8	83.	1.	88.4	0.68	0.68	6	89.7	89.7	89.7		89.7	89.7	6	89.7
141	43.9	76.8		87.7	89.0	89.7	89.7	0	90.3	8006	90.3	80.3	90.3	90.3	80.3	90.3
	43.9	76.8	1	87.7	89.0		1.68		90.3	8006			90.3	90.3	90.3	800.3
8	43.9	16.8		87.7	89.0	69.7	89.7	0	80.3	8006	6.06	0	90.3		90.3	90.3
	43.9	17.4	1	\$ 8 8 9	1.69	91.0	91.6	65.3	92.3	92.3	92.3		6.26	92.9	92.9	95.9
9	43.9	77.4		89.0	90.3	91.6	6.76	65.6	65.6	65.6	65.6	65.6	93.6	93.6	93.6	93.6
	43.9	77.4		89.0	6.06	91.6	92.3	6.26	6.26	65.6		34.5	65.5	95.5	95.5	95.5
8	43.9	77.4		89.0	0.16	95.9	93.6	2.46	34.5	8.46	96.1		4.16	97.4	91.4	4.16
	43.9	17.4			0116	92.9	8.46	6202		1.96				66		4.66
1 20	43.9	77.4		89.0	016	65.6	8.46	95.5	95.5	96.1		98.7	00.00	10000	0	10000
	43.9	17.4			016	2.	34.8	2	52.5					0		0000
٨١	43.9	77.4		69.0	91.0	92.9	8.46	62.5	95.5	96.1	1.86	98.7	00.00	1000	100.0	0.00

TOTAL NUMBER OF OBSERVATIONS

155

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MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

73-77

19 NAL

100

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING																
(FEET)	0 41	9	81	1	e vi	72 21	2 4	٧١ %	VI VI	- AI	% Al	* 1	Z AI	≥ 5/16	VI %	AI
NO CEILING	3	52.3	52.9	53.6	3		4		4	4				4		54.
> 20000	3	9	56.8	-		58.1	58.1	8	58.1	58.1				58.1	58.1	58.
	5	9	56.8	-	-	8	80		8	8	8	-		•	80	58.
0009		56.1	56.8	57.4	57.4	58.1		58.1	58.1	58.1		58.1	58.1	58.1	58.1	58.
7 14000	3	9	57.4	00		00		8		58.7	58.7	58.7			80	58.
12000	7	0	60.7	61.3	-	610		-	6.19		6119			6119	6119	61.
	-	3	64.5	5		65.8	5	5	5		65.8	5			5	2
8	51.0	63.9	64.5	2.59	65.2	5	65.8	65.8	65.8			65.8	65.8	65.8	65.8	65.8
i	-	5.	65.8	9	9			-	1	7	-	-	-		-	67.
7000	-		65.8	9	100	-	67.1	-	67.1	67.1	-	67.1	1	67.1	-	67.
1	51.0	5	60.99		-			1.		-	-		-			67.
2000	52.3	7.	4.89	0.69	•	6	1.69	69.7	1.69	1.69	69.7	69.7	6	69.7	6	69
	53.6	6	10.3	-	-		2.	2.	5	2.	3	72.3		2.	72.3	2
000	54.8		72.3	72.9	3	74.2	74.2		74.2	74.2	74.2				74.2	
1	56.1		13.6	4			5	5	5		in	75.5				75.
300	56.1	72.9	74.8	73.5	76.1	-	77.4	1.	77.4	77.4	-	-	7	-	77.4	
	56.1		78.1	00		0		-		-		81.3	-	81.3		-
7000	58.7		19.4	0		-			ė	3	3	3		3	3	3
1	58.7		19.4	80.0	80.7		3	3	3		83.2	83.2		3		3
200	58.7	77.4	19.4		81.3	82.6				•	;		*		•	;
1	58.7		19.4	0		N	83.9						4		•	84.
000	58.7	78.7	81.9	82.6	3.	5	-	87.7	87.7			87.7	87.7	-	87.7	-
	58.7	19.4	95.8		3	•	7			8		88.4	8			88.4
8	58.7	0	83.2	"	85.8	87.1	89.7	0			0	0	0		90.3	0
	58.7	0	63.9	. 44	86.5			-	-	-					91.6	
8	58.7	0	83.9			88.4		92.3	65.3		92.3		2	2.	92.3	92.3
	58.7	0	63.9	5.			2.	3			*	;				
8	58.7	0		86.5	89.0	0	93.6	;			•		-	97.4	10	
	56.7	0	84.5			90.3		94.8			4.70	98.1	98.7	98.7	98.7	
30	58.7	80.7		86.5	6	ċ	3.	*	*				8	98.7		
8	58.7	80.7	84.5	86.5	89.0	60.3	93.6	8.46	8.96	65.5	1.86		. 66			66
	28.7					c			*	2		8.1	0000			

TOTAL NUMBER OF OBSERVATIONS

155

SWOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

22 HOURS (1.5.T.) NAC

The colling	CEILING							VISI	BILITY (ST.	VISIBILITY (STATUTE MILES)	ES)						
CHING 42.6 49.7 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0	(FEET)		250	8 41	4				1		-		221		1		
18000 48.4 56.1 57.4 57.4 58.1 58.1 58.1 58.1 58.1 58.1 58.1 58.1	NO CEILING	24		57.4		-100	(0)	- 0	- 80	- 8	0	-100			- 80	-	51.6
1860 48.4 56.1 57.4 57.4 58.1				57.4	-	8	100	00		10	20	23			100		58.1
10000 46.4 56.1 57.4 58.7				57.4			8		8	00		58.1			8		
13000 54, 0 57, 4 58, 7 58, 7 59, 4 62, 0 66, 0 60, 0				57.4		0	9	8	8	8	100				8		
10,000 22.3 61.9 63.2 63.3 64.5 64.5 64.5 64.5 64.5 64.5 64.5 64.5 64.5 65.6 65.2			•	58.7	8		0	0		0	0		•		ò	•	0000
90.00 52.9 62.6 63.9 64.5 65.2 <				63.2	173		*	*	;	4	*	*	•		*	:	64.5
24.2 64.5 65.2 66.5 66.5 67.1 67.1 67.1 67.1 67.1 67.1 67.1 67.1		•		63.9	3		5	5	2	2	2	•			3		65.2
54.8 65.2 66.5 67.1 67.7 67.0 69.0 <t< td=""><td></td><td></td><td></td><td>65.8</td><td>3</td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>67.1</td></t<>				65.8	3			-									67.1
55.5 65.6 67.1 67.1 67.1 68.4 69.7 70.3 <th< td=""><td></td><td></td><td>•</td><td>66.5</td><td></td><td></td><td>2</td><td>-</td><td>1.</td><td>-</td><td>-</td><td>•</td><td></td><td></td><td>-</td><td></td><td>67.7</td></th<>			•	66.5			2	-	1.	-	-	•			-		67.7
350. 56.1 67.1 68.4 68.4 69.7 70.3 <th< td=""><td>1</td><td></td><td></td><td>67.1</td><td></td><td></td><td></td><td>6</td><td></td><td>6</td><td>6</td><td></td><td></td><td></td><td></td><td></td><td>0.69</td></th<>	1			67.1				6		6	6						0.69
25.0 56.8 68.4 69.7 70.3 72.3 72.5 74.2 74.2 74.2 74.2 74.2 74.2 74.2 74.2				4.89	00		0	.0	0	0	ċ				ċ		70.3
25.00 65.7 70.3 72.3 72.3 72.5 74.2 74.2 74.2 74.2 74.2 74.2 74.2 74.2				1.69				=	:	-	-				Ŀ		
3500 61.9 75.5 75.5 75.5 75.5 76.8 77.4 77.4 77.4 77.4 77.4 77.4 77.4 77				72.3	2.		*	*	*	*	;				*		
3000 61.9 75.5 78.1 78.1 79.4 80.0 80.0 80.0 80.0 80.0 80.0 80.0 80	1			75.5	5			:	-						-		
2300 62.6 76.8 79.4 79.4 80.7 61.9 81.9 81.9 81.9 81.9 81.9 81.9 81.9 8				78.1	8		0	0	0	0	0				0		
5000 63.2 78.1 80.7 81.3 82.6 83.9 83.9 83.9 83.9 83.9 83.9 83.9 83.9				19.4			-	-	-	-	-				-		
1500 63.2 78.1 80.7 81.3 82.6 83.9 83.9 83.9 83.9 83.9 83.9 83.9 83.9				80.7			3	3	3	3		•			3		83.9
1500 63.2 78.1 80.7 81.3 82.6 83.9 83.9 83.9 83.9 83.9 83.9 83.9 83.9				80.7	-		*	3	3.	3							
1300 63.2 78.7 81.3 81.9 83.2 64.5 84.5 84.5 84.5 84.5 84.5 84.5 84.5 8				80.7	:		•		3	3	•				3		
63.2 80.0 82.6 83.9 86.5 87.7 87.7 89.0 89.0 89.6 89.4 88.4 88.4 89.0 89.0 89.0 89.0 89.7 89.7 89.7 89.7 89.7 89.0 69.2 80.0 82.6 83.9 87.7 89.0 89.0 89.0 89.0 89.0 89.0 89.7 89.7 89.7 89.7 89.7 89.0 63.2 80.0 82.6 83.9 87.7 89.0 89.0 90.3 90.3 90.3 90.3 91.0 91.0 91.0 91.0 91.0 91.0 91.0 91.0				81.3		3	4.	3		3	3				;		84.5
500 63.2 80.0 82.6 83.9 86.5 87.7 87.7 89.0 89.0 89.0 89.0 89.0 89.0 89.7 89.7 89.7 89.7 89.7 89.7 89.7 89.7			•	82.6	3	;	1	-	8	8	8				6		89.0
63.2 80.0 82.6 83.9 87.7 89.0 89.0 90.3 90.3 90.3 90.3 91.0 91.0 91.0 91.0 91.0 91.0 91.0 91.0				82.6	3	9		-			6				6		
03.2 80.0 82.6 84.5 88.4 89.7 89.0 91.0 91.0 91.0 91.0 91.0 91.0 91.0 9			•	82.0	3	-	6	6	0	0	ċ				-		
63.2 80.0 82.6 84.5 88.4 89.7 89.7 91.0 91.0 91.0 91.0 91.6 91.6 91.6 91.6 91.6 91.6 91.6 91.6				95.6	0		6	6	0	0	0				-		91.0
500 63.2 80.0 82.6 84.5 88.4 89.7 90.3 92.3 92.3 92.3 92.3 92.3 92.9 92.9 92				82.6	4	*	6	6	-	-	-	•			-		
400 63.2 80.0 82.6 84.5 88.4 90.3 91.0 92.9 92.9 92.9 94.2 94.2 94.8 95.5 95.5 95.5 300 63.2 80.0 82.6 84.5 89.0 91.0 91.6 94.8 94.8 96.1 96.1 96.1 96.8 97.4 97.4 97.4 97.4 97.4 97.4 97.4 97.4				82.6	*	*	6	0	2	2	5.				2.		
200 63.2 80.0 82.6 84.5 89.0 91.0 91.6 94.2 94.8 96.1 96.1 96.8 97.4 97.4 97.4 50.0 63.2 80.0 82.6 84.5 89.0 91.0 91.6 94.8 94.8 96.1 97.4 97.4 98.7 98.7 98.7 100 63.2 80.0 82.6 84.5 89.0 91.0 91.6 94.8 94.8 96.8 98.1 98.1 98.7 99.4 99.41 0 63.2 80.0 82.6 84.5 89.0 91.0 91.6 94.8 94.8 96.8 98.1 98.1 98.7 99.4 99.41			•	85.6	4	00	0	-	2	5	2	•			3		
200 63.2 80.0 82.6 84.5 89.0 91.0 91.6 94.8 94.8 96.1 97.4 97.4 98.1 98.7 98.7 100 63.2 80.0 82.6 84.5 89.0 91.0 91.6 94.8 94.8 96.8 98.1 98.1 98.7 99.4 99.41				35.6	*	6	-		;								97.4
100 63.2 80.0 82.6 84.5 89.0 91.0 91.6 94.8 94.8 96.8 98.1 98.1 98.7 99.4 99.410 0 63.2 80.0 82.6 84.5 89.0 91.0 91.6 94.8 94.8 96.8 98.1 98.1 98.7 99.4 99.410				82.6	4	6			;			•	91.4		8		98.7
0 63.2 80.0 82.6 84.5 89.0 91.0 91.6 94.8 94.8 96.8 98.1 98.1 98.7 99.4 99.410				82.6	*	6	-		*	;	•		98.1		6		1000
			•	82.6	. 4	6		91.6	*		. 9	•	98.1	1.86	4.66	4.66	10000

155

TOTAL NUMBER OF OBSERVATIONS

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CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLUM GROVE, PENNSYLVANIA

14793

73-77

YEARS

22

ACE ALL		N	.1 49.1 49.1 49.1 49.1 49.1 49.1	.6 54.6 54.6 54.6 54.6 54.6 54.6	.7 54.7 54.7 54.7 54.7 54.7	.7 54.7 54.7 54.7 54.7 54.7 54.7	55.3 55.3	.9 56.9 56.9 56.9 56.9	.7 60.7 60.7 60.7 60.7 60.7	.1 51.1 61.1 61.1 61.1 61.1 61.1	9 9:59 9:69 92:0 92:0 9:09 9	7 65.7 65.7 65.7	0 67.0 67.0 67.0 67.0 67.0 6	.4 68.5 68.5 68.5 68.5 68.5 68.3	.5 70.6 70.6 70.6 70.6 70.6 7	.1 73.2 73.2 73.2 73.2	.3 75.5 75.5 75.5 75.5 75.5 7	.4 78.6 78.6 78.6 78.6 78.6	.5 80.7 80.7 80.7 80.7 80.7	0 83.2 83.2 83.2 83.2	2 83.4 83.4 83.4 83.4 83.4	.5 84.7 84.7 84.8 84.8 84.8 84.8	5.1 85.1 85.2 85.2 85.2 8	7.4 87.4 87.7 87.7 87.7 8	200 7.00 7.00 7.00	89.8 89.8 90.2 90.2 90.4 9	1.1 91.1 91.5 91.5 91.7	.3 92.8 92.9 93.1 9	0 94.1 94.7 94.8 95.0 9	5.2 95.3 96.0 96.1 96.3	.2 96.4 97.1 97.3	.2 96.9 97.0 98.3 98.6 99.0 99.4
NCY OF OCCURRENOBSERVATIONS)	VISIBILITY (STATUTE MILES)	VI 71 71 71 VI	64 0.64 0.64	54.4 54.4 54	54.5 54.5 54.	54.5 54.5 54	55.2 55.2 55	56.8 56.8 56	09 5.09 5.09	61.0 61.0 61	9 7.59 7.69	65.6 65.6 65.	66.9 6.99 67	68.2 68.2 68	70.3 70.3 7	72.9 72.9 73	.2 75.2 75	78.2 78.2 78	80.3 80.3 8	82.7 82.7	83.0 83.0	84.2 84.2 84	84.6 84.6 8	86.8 86.8	200	98 0 89 0 9	90.1 90.1 9	90.8 90.8	92.1 92.1 93	93.0 93.0 9	93.6 93.6	93.9 93.9 95
PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)	17	Y 3 Y 2% Y 2	48.6 48.9 49.0	4.4 54.	54.2 54.4 54.5	54.4 5	54.8 55.1 55.2		00	60.5 60.8 61.0	5 05	64.7 65.2 65.6	9 66.	67.1 67.7 68.2	.1 69.8 70.	71.5 72.2 72.8	4.	7 77.5 7.	4.61 9.	c 0	.101.	81.9 83.0 84.0	2.3 83.4 84.	3.8 84.9 8	200	5.1 86.3 8	5.7 87.1 8	6.2 87.6 90.	6.7 88.6 91.	60.9 89.0 91.9	87.0 89.0 92.3	87.1 89.1 92.3
PERCEN		4 VI	.5 47.7	.4 53.1	.5 53.	.5 53.2	.9 53.	4	. 5 58.6 59.	6.	.1 62.7 63.	.2 62.	.2 63.9	.3 65.1 6	.9 66.	.7 68.9 7	.8 71.1	.2 73.8 7	.6 75.4 7	.1 77.2 7	.2 77.3 79.	.3 77.	.6 78.0 80.	.2 79.0	10	R 79.6 82	8 79 8	8 80.0 82.	.1 30.2 8	.1 80.	.1 80.3	.1 6
	CEILING	(FEET)	0.	20000 40.7	18000	0.8	14000 41.2	2 12000 42.3 53	10000	9.	8.54 0008	0	6000	0	4500 47.5	0	3500 50.3	.5	2500 52.3	0	1800 52.9	0	1200 53.0	≥ 1000 53.0 74	0	53.0	0	53.07	0	300 53.0	0	53.0

TOTAL NUMBER OF OBSERVATIONS

1240

520

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

73-77

01 HOURS (1.5.7.) FEB

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PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

9 58.9 <t< th=""></t<>
66.0 66.0 66.0 66.0 66.0 66.0 66.0 66.0
69.5 69.5 76.2 70.2 70.2 70.7 74.5 74.5 75.2 72.3 72.3 72.3 72.3 72.3 72.3 72.3 72
83.0 83.0 83.7 83.7 83.7 83.8 83.0 83.0 83.7 83.7 83.7 83.7 83.7 83.7 83.7 83.7
88.7 88.7 90.8 90.8 90.8 90.8 90.8 90.8 90.8 90.8
89.4 89.4 91.5 91.5 91.5 91. 89.4 89.4 92.2 92.2 92.2 92. 89.4 89.4 92.2 92.2 92.2 92. 89.4 90.1 93.6 93.6 93.6 93. 89.4 90.1 93.6 93.5 93.6 93.
89.4 90.1 93.6 93.6 93.6 94.

0

0

0

0

TOTAL NUMBER OF OBSERVATIONS

141

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0

0

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

73-77

04 WOURS (1 S T) FEB HONTH

2=

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

	AI 3	7 56.7	1.	1.1 56.7	•	. 4	:	7.99 1.0	• 4 0	00	8.	.3	.3 7	5.	.3 8	. 1.	8	æ.	.2	. 7 8	.7 8	.7 8	*	7.	8	9.	9.6 93.6	.3	.3 95.0	6.5 97.9	.2100.0
	2 5/16	56.7 56	9	6.7 5	9	2.4 6	3	1.	4	8 6	20	.3 1	3 7	4 7	3 8	-	æ	8 8	87.2 87	.7 8	7 8	.7 8	4		8	9	•	. 3	84.3 94	96.5 96	-
	Z AI	56.6	56.	-	50.7	- 1	63.1		4.	8	8.89	12.3	77.3	19.4	82.3	85.1	85.8	.	7.2		8.7		4.6	1.0	00	3.6	93.6	64.3	6.46	45.7	90.5
	AI AI	56.7		56.7	56.7		3		67.	68.	68	12.	77.	19	82.	65.	00				88.7		89.4	106	0	0	0	5	0		_
	AI	54.0	80	5	56.1	2		66.	67.	68.	0	12.	77.	79.	82.	85.	00	85		80	00	œ	œ	0	90.	.76		92.	92.	93.6	
LES	- AI	54.6	56.	56.	56.	63.	63.1	.99	67.	68.	68.8	72.	77.	19.	82.	85.	85.	85.	20	80	00		0	90.	.06	92.	92.	92.	6	93.6	93.6
TATUTE MI	VI 7.	54.6						99	67.	68.	68.	12.	11	19.	82.				87.2	8		00		.06	5	91.	91.	16	91.5	92.2	92.2
VISIBILITY (STATUTE MILES)	YI %	54.6	56.7	56.7	20	200	63.1		-		9	72.	77.	46.	82.		85.8				88.7	88.7	89.4		0	-	91.5		91.5	92.2	92.2
\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	12	54.6	56.	56.	50.				9	68.	68.	72.	-	19.	0	65.	85.		87.2	86.7	88.7	88.7		90.1	90.8		91.5		91.5	92.2	92.2
	7 2%	54.6	56.	0.	50.1		63.1	1.99	-		68.8			0	2	85.I	85.8	85.8					89.4		90.1	1.06	90	1.06	90.1		90.1
	N N	54.6	0		56.7		63.1	66.1			8		77.3	6	2.		3	85.8		88.7		88.1	89.4	0		0	1.06	0			90.1
	AI	53.9		26.0	56.0	200	62.4	9	66.7	68.1	68.1	71.6	76.6		80.1	83.0	83.7	83.7	84.4	8 . S	85.8	85.8	86.5	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2
	N AI	53.	56.	56.	56.	9		66.	99		0	:1/		78.					9			85.8	:	87.2			87.2			_	
	٥ ٨١	53.2	55.	55.	55.	900	61.	65.	99	67.	67.	10.	33	76.	18	80.	81.	81.	82.	83.							84.4	84.4			84.4
	2	48.9	48.9	48.9	6.84	20.7	53.2	56.7	57.5	58.9	58.9	60.3	63.1	64.5	0.99	67.4	68.1	58.1	1.80	68.1	1.89	68.1	66.1	56.1	68.1	68.1	-		68.1		68.1
	(FEET)	NO CEILING	V 18000	≥ 16000	2 14000		0000 0000 0000 0000	1	7000		2000		141		3000		2 2000		1300	-	1 100		8		8		8		1 1 1		١٨١

TOTAL NUMBER OF OBSERVATIONS

141

8201

WILLOW GROVE, PENNSYLVANIA

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

07 HOURS (1.5.T.) FEB HONTH

CEILING							VISI	BILITY (ST.	VISIBILITY (STATUTE MILES)	ES						
(FEET)	5	۰ ۸۱	\$1 A1	7	e Al	2 2%	1 2	VI %	VI 2/1	-	% Al	*	VI Z	2 5/16	VI VI	٨١
NO CEILING	34.0	43.3	47.5	1.64		51.8	51.8		51.8	51.8	51.8	51.8	97.6	51.8	51.8	
> 20000		1.64			0	30	00	0			8		0			-
≥ 18000		1.65		26.0		28.5	58.5				29.5	•		00		28.
00091 ₹		1.65			26.7	8	*			œ	8		0	8		
		20.4		. 9	37.5	58.9		8	8	8	8	8	8		•	
7 12000	39.0	52.5		58.9	29.6	-	61.0		•	-		•	-	61.	-	61.
	41.1	24.6		-	61.1		3.	3.	3.	3		3.		63.	-	
8	41.1	94.6		01.0	61.7	63.1	63.1	63.1		63.1		3			3	63.
	41.8	96.0			3	4.			*					64.		3
141	45.6	57.5	61.7		64.5		•	0	9					99	•	99
1	43.3	58.9					-	-		-				67.		67.4
2000	43.3	58.8			0.99			-						67.		
1	44.0	61.0			30			0		6				.69	6	.69
1 1	45.4	63.8	68.1	70.3	70.9	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	-	72.3	72.
1	42.4	0.99			3		*			*				14.	:	14.
300	46.8	4.19			75.9		77.3	-	-					77.		77.
1	47.5	8.89					6	0		0				900		80.
200	47.5	68.8			4.64		81.6	85.3	2		•	82.3		2	82.3	82.3
	47.5	8.89			6			3.	3	3	83.0	0968		83.	83.0	83.
200	47.5	68.8	73.8	77.3		81.6	82.3	83.0	6	3		m	3	83.		
	47.5	70.5				84.4		5		3	85.8	85.8		85.		86.
8	47.5	70.2		78.7	80.9		85.8		;		•	86.5	0	သ		87
	48.2	10.9			-		86.5		-		87.2	87.2	87.2			
8	48.2	40.0		80.9	83.0	86.5	88.7						6	6	106	
	48.2	10.9		0	83.0	9		6	6		6	89.4				06
8	48.2	10.9		81.6	84.4	87.9	90.1	91.5	91.5	91.5	61.5	-	-	91.5	92.2	
	48.2	10.9		-	84.4			:	-			6116	:	91.5		
141	48.2	40.0		81.6	4.48			-		91.5	-	-	-	-		92.
	46.2	10.9	0.87	82.3		38.1		92.2			92.2	2.26		92.2	92.9	92.
70	48.2	10.9	78.0	85.3	85.1		•	5.		2	2	• -	3			96
8	48.2	70.9	78.0	62.3	500	3000	8.06	92.9	92.9	92.9	93.0	93.0	40	94.9	97.2	97.
	7.0.	100	•				•	•	•		•		:	•	•	

TOTAL NUMBER OF OBSERVATIONS

141

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14793 STATION

141

TOTAL NUMBER OF OBSERVATIONS

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

10 FEB

(FEET)	2	9	\$ AI	41	e Al	1 2%	7 1	V1 72	¥1 YI	-	% AI	*	N %	≥ 5/16	VI %	٨١
NO CEILING				3	4		4	4	4	4	*		4		54.6	54.
> 20000				60.3	61.7	61.7	-	61.7	61.7	61.7	61.7		61.7	61.7	61.7	61.
				0	61.7	-	-	61.7	1.	-	61.7		-	61.7	61.7	61.
14				60.3	61.7	61.7	61.7	61.7	61.7	61.7	61.7		:	61.7	61.7	61.
					61.7	-	:	-	-	-	61.1		-			610
12000				61.0	62.4	62.4	2	2.	62.4	2	62.4		2	62.4	52.4	62.
1				61.7	3.	3.	-	3	3				3	63.1	3	63.
000				61.7	63.1		6	63.1	63.1						•	63.
1					00	8	8	8	.0	8			8	8	8	
700				66.7	3	68.1	68.1	68.1	68.1		68.1			68.1	68.1	68
				00	6	6	6	6	6	6			6	6	6	69
2000				6	0	0		0	0	0			0	0	0	200
				0	2.		2	2.	2.	2			2.	2	2.	72.
900					3	9			.0	9						0
				9	8	5	6	6	6	6			6	6	6	79.
3000				77.3	6	•	0	0	0	ċ				0	0	0
1				0	-	2.	2.						3.	3	3.	m
7000				0	3	3		2	5	5			10		5	85.
				0	3.	4.	4	5	0	3			9	9	9	0
9				•	-	4			5	5			. 9	.9	9	86.
1					5		-	8	8				6	0	6	0
8				83.7	.0		7		6					0	1.06	0
					9		-	6	5	0			0	0	0	
8			79.4	83.7	86.5	~		4.68	4.68	8.06	8.06		91.5			91.
				83.7	.0	•	-		6	0			:	-	:	-
8				83.7	-	8		0	90.1	-	-		2	92.2	2	92.
				83.1		6	.0	:	-	3.				*	;	
64				83.7	87.2	89.4		-	91.5	3			*		;	*
				85.1	68.1	.0			3	5				0	•	96
38	41.8	75.9	80.1			0	92.2	3		96.5	. 9	97.5		7.	6.16	
				85.1	88.	8.06		93.6	93.6		6.96		66.3		66.66	001
٥			000							,	,			-		

SMOS

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

13 HOURS (1 S T.) FEB

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

-		1-	~	-		21	•	-	-		~	5	_	-	~	-		9	_		_		_		-	21	21	-	_	21	2	_	
	0	0		:	-		8	0	0.3	3.	3	•		8	3.8			:	3	3	3.8	8	0	0	:	2.	5.	2	2		-	•	0
		-	2	_	-			_		_		_		-		_		-		-		-		_	-	_		_		_	0	-	-
	X Al																								•						97.2		•
	5/16		-												œ																.2		
	18	C	0	-	-	C	8	0	0	3	3	0	œ	8	3	3	0	-	-	3	5	00	0	0	-	2	2	2	2	-	16	0	0
	Z Al																														97.2		
	*	0	•		-	8	8	0		3	3	6	8	8	3.	*	6	-	3	3.	2.	8	0	0	-	2	5	2.	*	•	6.96		•
	% AI	0	•	-		50	33	0	0	14	4	0	30	Ø	60	1	Q.	-	4	4	3	100	0	0	-	N	~	~	4	0	6.96	•	0
(\$	Ā	.0	9		-	8		0	·		3	9	8	00	3.	;	6	-				00	0	ċ	-	2.	2	2	*		96.5	9	
VISIBILITY (STATUTE MILES)	¥1 ¥1						8	0	0	3	9	0	8	8	3.	4.	6	-		3	5	8	0	0	7	2	3	2		3	95.7		
BILITY (STA	Y 1%																								•						1.56		
VISI	1 2	0	;	-	-	*	8	0	0	3.	3	.0	8	8		4	6	-		3.	5	8	0	0	-	-	-	3		3	84.3	. 4	3
	> 2%		9		7.	8	8	0	0	3	3.	9	8	8	3	. 4	6		3.	3		-	43	8	0	0	0	0	2.	2	92.2	7.	2
	N Al	0		-	7.	8	8	0	0	3.	3	9	. 69	30	3	*	6	-	83.0	3.	*	9	1.			8	8	6	0	0	1.06	0	1.06
	4																														87.2		
	۶ ۸۱						58.5				63.1								77.3				2	2			3				83.0		•
	9	8.	3	9		0	56.7		0			2	3.	. 47		6					75.2		77.3			*	78.0		78.0		78.0	•	78.0
	2						34.0												-		41.8		41.8		:		41.8	-	41.8	-		41.8	-
CEILING	(FEET)	NO CEILING	× 20000		14000		17000	1	8	1	141	1 .	200		141	1	308	1	300		8		8		8		8		8		8		٥
		1-		_		_		_		_	_	_		_		_	-	_		_	_	_		_		_		_		_		_	

TOTAL NUMBER OF OBSERVATIONS

141

3911

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

MILLOW GROVE, PENNSYLVANIA

14793

73-77

FEB.

		O Al	8.94	55.3	2000	500.7	58.2	61.7	61.7	65.3	0.99	4.19	67.4	68.8	15.9	78.0	80.9	82.3	86.5	87.2	1006	90.1	8.06	90.0	41.0	76.70	2	95.7	61.6	66.3	0.001	0000
1 9 THOOM (1		× 1	1.04	24.0	24.0	20.0	57.5	0.10	61.0	64.5	65.3	1.099	2009	8	15.2	77.3	80.1	-	85.8	86.5	4068	89.4	1.06	1.06			0000	95.0				77.3
		≥ 5/16	1.94	•	24.0	26.0	57.5		61.0	24.5	65.3	1.99	66.7	68.1	15.2	17.3	80.1		82.8	86.5	89.4	40.68	1.06	1006	20.0	010	0	95.0	97.2	6.16	61.6	41.0
		Z AI	1.04	24.0	24.0			0.10	61.0	5	65.3	9	2.99	9	75.2	11.3	80.1	-	85.8		4.68	4.68	1.06	1.06	0	100	•	95.0	97.2	6.16	6.16	41.0
		*	1.04	240	24.0	20.0		0110	0119	•	65.3	1 :99	2 . 99	•	15.2	11.3	80.1	-	85.8	86.5	89.4	89.4	1.04	1006	20.0	4.50		95.0	2.16	61.6	6.76	41.6
		% Al	1.05	24.0	24.0	2000	-	0.19	-	*	65.3	1.99	1.99	1.89	75.2	-	80.1	-	85.8	86.5	4.68	89.4	1.06			200	9	95.0		6.16	61.6	41.07
RENCE	(S	Ā	9		24.0	26.0	57.5	0.19	61.0	*	68.3	1.99	2.99	68.1	75.2	77.3	80.1	-	85.8	86.5	80.4	89.4	1006	1.06	20.0	200		95.0	0	8.96		6.96
NCY OF OCCURE OBSERVATIONS)	VISIBILITY (STATUTE MILES)	¥1	1.95	•	24.0	26.0		0.19	0.19	•	65.3	1.99	1	.1	-	17.3	80.1	-	85.8	86.5	4.68	4.68	1.06		70	000		94.30	95.0	0.56		0.0
OF C	SILITY (STA	71		24.0	0 4			0.10	01.0	+	65.3	1.99	2009	•	73.5		-	-		9	89.4	4.	-		200	000	03.6	96	0.66	0.56		0.06
JENCY Y OB	VISII	N N	•	•	0.40			0.19	0.19		65.3	1.	1	•	75.5	77.3	80.1	7.	85.3	86.5	9.68	4.68	90.1	1.06	-	0 0		93.6	6.96	6.46	6.56	24.3
PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)		Y 21/2	1.94	\$	3 6	26.0		0.19	01.0	*	65.3	1.99	1.99	100	15.2	17.3	80.1	-	65.8		4.		-	-:-	100		9 0	6.26			45.9	2
ENTAGE (FROM		ε Al	1.95	24.0	24.0	26.0	57.5		61.0	3	64.5	0.99	0.99		74.5	16.0	4.64	80.9	85.1	82.8	87.9	6	-	-	-		100	106	1.06	1.06		1.04
ERCEN (F		4	46.1					61.0	61.0	3	64.5		0	67.4	14.5	16.6	4.64	0	84.4	85.1	87.2		87.9	•		2	000	88.7	8.7	. 7	8.7	1.00
4		S AI	45.4	-		- 1		29.6	59.6		*	8.					.3	0		80.1			0	0	0		> <	000		0	0	0.00
		9					53.9	57.5				-	-	63.1	0	N					78.7	78.7	19.4	40.61	*	10.	•	10.4	6	19.4	6	4.6
		2	.3	7.		0				7	.3	0	0		0	_	. 1		2.4	2.4	5.4	4.	3.4	*	3.6			4.00	5	5	•	
	CEILING		CEILING	0000	18000		12000	10000	0006 AI	0008 AI	> 7000	0009 ~	> 2000	> 4500	-	3500	> 3000	2 2500	7 2000		> 1500	2 1200	1 1000	83		88	1	88		38	8	-

TOTAL NUMBER OF OBSERVATIONS

141

DIRNAVOCEANMET SMOS

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

73-77

1

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

FEB HONTH 19

		-	-	_		_		-	-	-	-	_		-	-	-	-	_	-	-		•	-	~1	-	-	0	-		- 1	-	7
	٨١	50.4	100	58.9				63.1		•	0	70.9	3.	76.6	77.3	80.1		85.8		86.5			90.6						95.	6	000	3
	AI	58.9	8	8		-			-	•	70.5	400	3		-	80.1	:	è	2	86.5		89.4	8.06	95.5		93.6	93.0	84.3	0		0.00	0
	5/16	40.8	6.8	8.9	0.1	1.1	3.1	3.1	4.	8.8	2.0	6.0		.9	7.3	0	-	85.8		•		. 7	-	1.5		2	6.26		0.56	7.5		200
	AI %	58.9 5	6.	00	0.1	1.7	3.1	1.	*	8		0.	3.1	9.9	6.1	0.1	9.1	5.8	5.8	6.5	7.5	8.7	1.0	1.5	7.7	5.9	6.7	3.6	2.0	20,	0 %	0.0
	*	4 0	6.	0	9 0 0		0 1.		*	8 6	7.	. 6.	-	9.		1 3	9	8			. 2	P.	6 1.	5	2.	0	6.	•	•	20	. 0	
	AI.	58	58	58		61		63		68	9	20	13	16		80		30					90	6					5		. 0	
	% AI	58.9		80	0.19	-		3		8	70.2	0	3.	16.6		80.1		85.8			-		0			6.26	6.76				207.0	:
(1	-	50.08	80	58.9	0119	61.7		63.1	•	•	0	400		16.6	17.3	80.1	-	85.8	3	86.5	87.2	88.7	89.4	8.06	61.5	2.26	2.26	5	. 4		000	0
VISIBILITY (STATUTE MILES)	71 7	58.9	3.9	6.8	1.0	1.7	3.1	-	4.	80	70.5		13.1		1.3		97.8	85.8	85.8	36.5			4.68	100	8.06	61.5		32.2		3	500	:
IY (STAT	11%	4.0	5	6	0.		1.		5.	œ	2.	0		9.	m		0.	20	œ		2	. 7	5.	7		1.5	.5	2.2		9.	0 0	. 3
SIBILIT	ΛI	508	1	58	0	61	9	63	9	68	70	7	13	-	-	80	30	8	00	80	00	3	00	90	6	0	0	0	6	5	20	
N.	7	50.4	0	58.9	61.0	61.7	63.1		67.4	68.8			73.1			80.1		85.8			87.2	88.7	6	90.1	90.0	90.8	0	•		2	93.6	9
	7 2%	58.9	200	58.9	-			3		68.8	•	10.9	3.	76.6	-	19.4		85.1		5		-		88.7	4 . 69	4.68	4.68	6	0	90.6	200	•
	es Al	4.05	00	58.9	61.0	61.7	63.1	63.1		68.8	70.7	0	13.1	9.91	17.3	6		35.1		5	66.5	87.2	87.9	88.7	5.60	4.68	4.68	4.68	1.06		1.06	1.0%
	•	40	6	6	0.	1.7	*	*	1.	8.1		0.2		6.	9.	8.7	1.0	4	4 . 4	5.1	5.0	6.5	2.	6.4	6.1	1.9	6.	7.9		-		
	٨١	40		in		0		9	0	0	9	~	-	-		~	a :	20	00		00	3	00		8	7 8	8	8 /	4			0
	V)	50.6		58.						68.	69	70.	12					-	1	-	RI.	82.	83	83.	83.	83		-		- 1		
	6	50.4	58.9	58.9	61.0	61.7	62.4	62.4	66.7	68.1	69.5	70.2	72.3	75.9	76.6	78.0	78.7	80.1	80.1	80.1	80.1	80.9	80.9	31.6	81.6	81.6	81.6	81.6	82.3	82.3	200	0.70
	0 1	39.0			1.04	7	-	-	-		2	10	0	0.9	1.9	7.5	2.0	6.8	6.8	6	8.9	6.8	6.0	.9	8.9	6.8	6.9	6.8	6.0	8.9	0	
CEILING	FEET)	CEILING		00091	14000	12000	10000	0006	8000	7000	0009	2000	4500	4000	3500	3000	2500	2000	1800	1500	1200	1000	900	8	200	88	9	68	300	200	8.	0
_ 5		2 ^	1	NI AI		1 11	^	IAI	^	1 11	^	1 11	^	1 11	^	1 11	^	1 11	^	1 11	^	1 11	^	1 11	^	1 11	^	IAI	Al	Al	AL	^1

TOTAL NUMBER OF OBSERVATIONS

141

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14793 STATION

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

FEB

2000

22 HOURS (1.5.T.)

NO CEILING 12 20000 13 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0 00 00 00 00 00 00 00 00 00 00 00 00 0	00000000000000000000000000000000000000			2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		00000000000000000000000000000000000000	000000000000000000000000000000000000000	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	mmmmoooommoo	1 0 m m m m n 0 0 0 0 - m 0 0 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
444000000000000000000000000000000000000	M M M M M M M M M M M M M M M M M M M		2000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	27777777000000000000000	 	0 24		000000000000000000000000000000000000000	000000000000000000000000000000000000000	Namanuo ca 1 1 1 1 10	0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	887.22 887.22 487.22 487.22 488	000000000000000000000000000000000000000	8 8 8 8 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	0 N + M 1 7 7 7 7 7 7 8 9 0

TOTAL NUMBER OF OBSERVATIONS

141

2000

DIRNAVOCEANMET SMOS

0

SELL

14793 STATION

and a

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

CEILING VERSUS VISIBILITY

WILLOW GROVE, PENNSYLVANIA

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

FEB HONTH

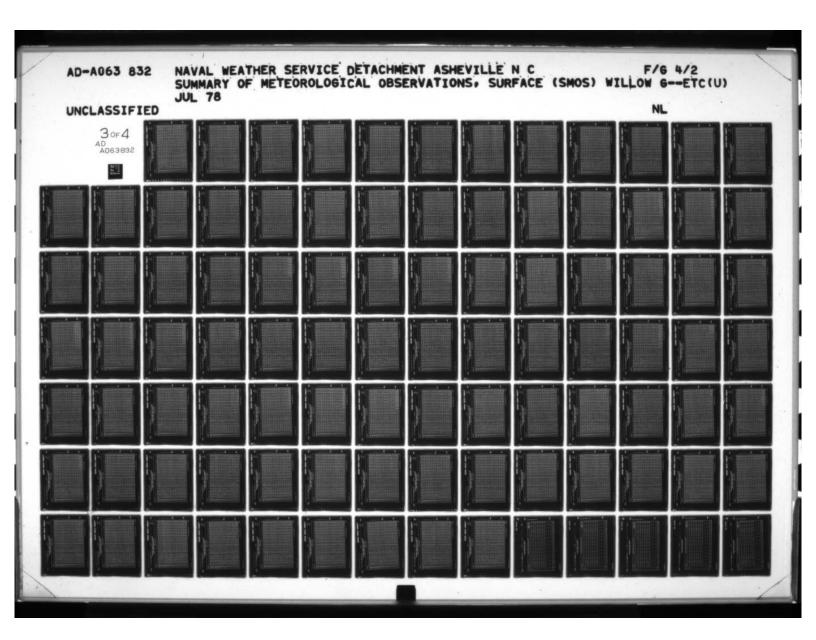
ALL HOURS (1 5 T.)

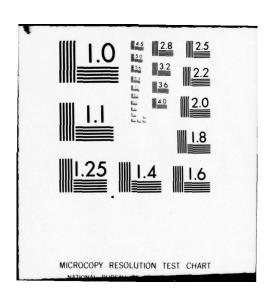
	N Z 9/16 Z % Z	52.6 52.	58.7 58.7 5	58.8 58.8 5	58.8 58.8 5	59.5 59.5 5	60.5 60.5 6	63.2 63.2 6	63,3 63,3 6	66.9 66.9 67	67.5 67.5 6	68.8 58.8 6	69.9 69.69	72.0 72.0 7	6.2 76.2 76	77.8 77.8 77	80.7 80.7 8	82.7 82.7 82	85.3 85.3 8	85.6 85.6 8	86.6 86.7 8	88.1 88.2 8	89.1 89.3 8	89.5 89.7 8	90.7 90.9 9	91.1 91.3 9	92.2 92.4	93.1 93.3 9	3.9 94.1 9	95.2 95.4 9	96.1	97.3 98.1 9	7.8 98.810
	X AI	.6 52.	. 1 58.	.8 58.	.8 58.	.5 59	. 5 60.	. 2 63.	.3 63.	. 99 6.	.5 67.	.8 68.	.69 6.	.0 72.	.2 76.	.8 77.	.7 80.	.78 1.	.3 85.	.68 0.	.6 86.	. 1 88	1 89.	. 5 89.	.7 90.	16 10	92.	.8 93.	.5 93.	.8 95.	5.5 96.	. 2 97.	•
	λ1 % λ1	52.0 52	8.	8.	8.8	6.6	'n	3.6	m	6.9	7.5	8.8	6.6	0.2	76.2 76	8.1	1.0	1.2	2.5	5.5	•	8.08	8 0.6	9.5 8	6 9.0	6 1.1	5.1 9	5 1.7	5.	4.5 9	5.1 9		5.8
MILES)	ÃI	32.6	58.	58.	58.	59.	.09	63.	63.	.99	67.	68.	6.69	72.	~	77.	80.	82.	85.	85.	86.	80 80	.63	89.	.06	.06		2	6		*	6.46	4
(STATUTE MI	VI Z	52.	58.	58.	58.	59.	60.	63.	_	.99	67.	68.	69	12.		11.	80.	82.	85.	85.	86.	38	89.	89.	.06	.06	_	.16	0	93.	93.5	3.	
VISIBILITY (S	V	52.	20.	58.	58.	39.	60.	63.		66.	67.	68.	69	76.	76.2	77.	80.	82.	65.	85.		88	89.	89.	.06	.06	91.	91.	0	5	93.8	93.7	93.7
>	AI N	2.	58.	58.	58	59.	.09	63.	63.	99	67.	68.	.69	12.		77.	80.	82.	84.	35.	86.	87.	88.	68	00	.06	0	91.	0	92.	92.	6	0
	> 21/4	52.	28.	58.	58.	59	60.	63	63	99	67.	68.	69	1.	76.2	17.	80.	62.	84.	94.	83.	67.	07.	63	00	68	20	80.	4.06	.06	91.	5	91.
	۱۷	52.4	28.	500	38.	59.	.09	63.	63.	.99	67.	68.	69		75.8	77.	80.	81.	84.	84.	35.	86.	87.	87.	87.			8		6	6	9.69	6
	٨١	52.0	28.	200	58.	58.	29	62.	62.	.99	66.	07.	60	-	1	76.	-	80.	82.	82.	83	84.		85	¢	00	æ		00	O		86.	
	٨١	51.3	2/0	57.	57.	58.	59.	01.	61.	65.	65	99	67.	69	73	75.	77.	18	79	6	80.	20	81.	82.	82.	82.	82.	82.	82.	83.	83	33.0	83.0
	٨١	50.4	20.	56.	56.	56.	57.	09	60.	63.	63.	65.	99	67.		13.	75.	15.	16.	16.	77.	78	730	78.		19.	46.	19.		6/	79.	13	14.
	VI 5	39.3				43.1	43.4	6. 55	45.0	46.6	47.0	41.7	48.4	43.1	51.9	52.8	53.8	54.3	54.7	24.7	54.7	24.7	54.8	24.9	55.0	25.0	55.0	25.0	55.0	55.0	55.0	55.0	55.0
CEILING	(FEET)	NO CEILING	7 20000	N 18000	≥ 16000		> 12000		0006		1 7000	1	2000		1 4000		> 3000		> 2000		> 1500		1000		00 8		009		14		300		١٨١

TOTAL NUMBER OF OBSERVATIONS

1128

DIRNAVOCEANMET SMOS





NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

12595-06101

73-

(FROM HOURLY OBSERVATIONS)

-77

PERCENTAGE FREQUENCY OF OCCURRENCE

MAR MONTH

2

10 Nours (1 \$ T.)

91.0 81.9 82.6 85.2 85.8 50.3 74.8 81.3 87.1 50.3 83.2 76.1 64.5 85.8 92.3 ٨١ 67.1 80.0 57.4 67.1 12.9 81.9 71.0 74.8 50.3 52.3 51.6 84.5 72.3 73.6 81.3 83.9 85.8 80.7 × 11 57.4 80.0 67.1 71.0 84.5 51.6 50.3 52.3 65.2 12.3 13.6 74.8 74.8 74.8 81.3 81.9 81.9 83.9 83.9 83.9 83.9 83.9 84.5 84.5 85.8 67.1 80.7 2 5/16 21.0 73.6 73.6 81.3 84.5 83.9 57.4 57.4 57.4 80.08 0.08 72.9 72.9 80.7 72.3 72.3 85.8 87.7 89.7 Z Al 50.3 1001 71.0 85.8 57.4 57.4 67.1 67.1 81.9 81.9 80. * 74.8 80.0 88.4 52.3 11.0 81.3 83.9 91.0 50.3 50.3 21.0 65.2 72.9 13.6 84.5 0.16 67.1 72.3 1.97 83.9 83.9 84.5 85.8 67.1 87.7 90.3 80. 89. VI VI 72.3 81.3 81.3 50.3 50.3 52.3 56.8 70.3 74.2 80.0 83.9 56.8 56.8 64.5 66.5 72.9 79.4 79.4 80.7 83.2 66.5 83.2 85.2 89.7 ٦. VISIBILITY (STATUTE MILES) 80.0 50.3 50.3 66.5 12.9 70.3 83.2 83.2 85.2 50.3 04.5 66.5 74.2 87.1 50.3 51.6 86.8 63.9 52.3 9.1 72.3 80.7 17 19.4 85.2 50.3 51.0 56.8 60.99 83.2 88.4 70.3 50.3 60.5 71.0 72.3 83.9 64.5 74.2 75.5 81.3 87.1 50.8 72.9 80.0 83.9 80.7 83.2 7 7 82.6 82.6 50.3 72.3 74.2 79.4 B0.0 5000 70.3 83.2 75.5 84.5 50.3 51.6 52.3 56.8 64.5 64.5 66.5 72.9 85.8 85.8 87.1 50.3 50.3 56.8 80.7 81.3 81.3 83.2 ۸I 4.61 80.0 83.2 83.2 66.5 12.9 74.2 51.6 18.5 50.3 56.8 56.8 66.5 70.3 11.6 54.3 72.3 80.7 1 2% 81.3 19.4 82.6 82.6 80.0 50.3 56.8 64.5 66.5 66.5 71.6 74.2 50.3 8.95 72.9 70.3 72.3 84.5 80.7 83.2 71.6 72.3 78.7 4.61 82.6 83.9 85.2 51.6 52.3 56.8 66.5 6.99 11.6 73.6 80.0 81.9 50.3 50.3 56.8 70.3 74.8 81.9 81.9 82.6 85.2 85.2 50.3 80.7 85.2 85.2 ۸۱ 6009 70.3 71.6 73.6 51.6 50.8 19.4 50.3 78.1 6118 11.6 80.0 83.2 50.3 64.5 66.5 12.3 14.8 81.3 81.3 56.8 78.7 83.9 ۸I 0.69 77.4 0.64 58.3 65.2 63.2 71.6 4.61 80.0 80.0 80.0 64.5 49.0 0.64 50.3 51.0 65.2 1.69 12.9 76.1 16.8 78.7 80.0 1.69 78.1 78.7 80.0 70.3 55.5 78.7 78.7 ۰ ۱۸ 54.5 51.6 39.4 39.4 40.0 50.3 54.8 55.5 58.7 39.4 43.9 34.8 58.1 58.1 58.1 58.1 58.7 40.7 6000 90.95 58.1 58.1 58.1 58.7 58.7 58.1 58.1 58.7 58.7 58. 2 NO CEILING × 20000 VI VI 0000 0000 0000 80 V IV 12000 VI VI 000 000 000 000 2000 3500 (FEET) 1200 88 88 88 2000 4500 2500 1800 88 AI AI AI AI ALAI AI AI ALAI AI AIAI AIAI

TOTAL NUMBER OF OBSERVATIONS

155

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

20

12095-00181

0

1226

0

0

0

0

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

04 HOURS (1 S T) HAR

							VISIN	BILITY (STA	VISIBILITY (STATUTE MILES)	8						
(FEET)	0 ^	9	5 4	*	A	> 2%	24	7 1%	71 4	-	*	*	3	2 5/16	3	0 4
	1			<	1			-	-		-		-	-		
NO CEILING	40.7	1	440.0	7	47.7	4	49.0	0.6	10.64	49.0	10.0	0.64	49.0	69.0	49.0	49.0
	40.7			-	47.7	00	6			6	6	6	6	6	6	0.64
2 16000	40.7	47.1		47.1	47.7	48.4	6	•	0.64	6	6	6	49.0	0.64		49.0
	40.7	47.1			47.1	8		6	9	6	6	6	6	6	6	0.67
7 12000	41.3	40.1	49.7	49.7		-		-		-	51.6		31.6	51.6	-	51.6
	43.9	24.2			5	.0	9			-			-			
000	43.9		54.2	54.8	55.5	56.1	56.8		57.4		1.	-				57.4
	48.4	29.4	29.4			-	-	2.	2.	2		2			2	
141	48.4			0.09		-				63.2	3	3		3	-	63.2
1	0.65				3.	3	3.	*		4.		:			:	
2000	49.7	61.9	619			4	65.2	2	•	5	3	5		5		66.5
	50.3				0		-	8				80		8	-	
141	52.9	67.7	-			-		2.	12.9		2	3				73.0
	52.9		-		-	2.	2.	3.	3	6		3				
3000	54.8	69.7	71.0	72.3	73.6	74.2	74.8		75.5	75.5	2		75.5	75.8		76.1
	55.5	10.3	-		\$	5	.0			9			16.8			
2000	56.1	71.0	-	75.5			78.1	8		8				8		79.4
1	56.1	72.3	75.5		8	8	6	80.0			0			ò		80.7
1500		73.6			80.0	•	:	-	-	-	5	2	82.6			83.2
	26.8	75.5		-	*	•		5	•					5		86.5
100	56.8	75.5	80.0	81.3	3		*	85.2	3	3	3	85.8		85.8		86.5
	56.8	75.5	80.0					2		3			85.8			86.5
8	56.8	75.5		-		*	8		3	3	;	•	•		•	87.1
	56.8	75.5		-		•		80.5	86.5	0			-			88.4
9	56.8	76.1		2	85.2	3	86.5	7.	87.1	87.1	-	-	8		88.4	89.0
	56.8	76.1	80.7	5.		87.1			•	O.	0	0	:	:	:	
84	56.8	76.1	80.7	85.6	2				89.7	6	0	800	91.0	-		91.6
	900		•	2.	85.8	-	1.68	-	0.16	-	2.	7	7	2		
200		76.1	0	2.	2	87.1		2.	2	5.	3			•	;	95.5
VI 85	56.8	•	100	82.6	85.6	87.1	91.0	6.26	6.26	93.6	8.46	8.56	8.06	96.8	96.8	1.86
	20.8	1.91	20.1	2.	0		0.16	7	•	3	:	-	0		:	100.0

155

TOTAL NUMBER OF OBSERVATIONS

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

07 HOURS (1.5.T.) MAR

	5 96.8 1100.0
2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
	95.
	95.5
7 4 4 4 4 4 4 4 4 6 6 6 6 6 6 6 6 6 6 6	95.5
*	94.2
	24.5
	0.00
	9.0.6
21 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	000
	7.7.7
	2000
	3000
- x x x x x x x x x x x x x x x x x x x	2 4 4 4 2 20 20 20
V 444444444444444444444444444444444444	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	7 76.
VI 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
10 10 10 10 10 10 10 10 10 10 10 10 10 1	41.3
CELLING OF CELLIN	71 71 71 71 71 71 71 71 71 71 71 71 71 7

TOTAL NUMBER OF OBSERVATIONS

155

88

SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

14793

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

10 MAR

mmmnun	4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5			-	-										-
**************************************	50	\$ 41	A I	E A1	2 2%	7	N 1%	¥1 VI	Ā	*	*	× Al	2 5/16	AI	41
**************************************		50.3	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
12000 34.22 12000 34.22 12000 34.22 12000 34.12 12000 38.1 1200 41.9 1200 41.9	1		9.1		1	-	51.6		51.6					51.6	51.6
12000 35.15 12000 35.15 12000 35.15 12000 36.11 1200 41.9 1200 41.9 1200 41.9	50.3	21.0	51.6	:	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.
12000 35.5 9000 36.1 9000 36.1 4500 38.1 4500 38.1 4500 41.9 1300 41.9 1300 41.9	6	3.	-	*	4	*			54.2				54.2		
2500 41.9 2500 38.1 2500 38.1 2500 38.1 2500 41.9 1200 41.9	24.5	54.8	55.5	55.5	52.5	3	55.5		•				53.5	2	35.
9000 9000			-	0	0	0				6			0000		900
2000 38.1 6000 38.1 4500 38.1 4500 38.1 4500 41.9 1200 41.9 1200 41.9	4.4	29.4	0.09	0		0	0.09						0.09	0.09	900
2500 38.1 4500 38.1 4500 38.1 4500 38.7 4500 41.9 1300 41.9 1300 41.9	-		4.5							4.			64.5		. 40
2500 38.1 4500 38.1 4500 38.7 4500 38.7 3500 41.9 1200 41.9 1300 41.9	0	;	2.59	5	2	3			3	65.5			65.2	65.2	65
2500 38.1 4500 38.7 4500 38.7 3500 41.3 1500 41.9 1700 41.9	6	:	5.5	2.59	5	5	2.69		5				03.2	3	65
2500 41.9 2500 41.9 2500 41.9 2500 41.9 1500 41.9	•	5	65.8		0	;							66.5	•	99
3500 40.0 3500 40.0 2500 41.9 1500 41.9 1700 41.9	0	5	5.8	:		9							6000		.09
3500 40 - 7 2500 41 - 3 2500 41 - 9 1500 41 - 9 1500 41 - 9	6	67.1	67.7	-	67.7	0	0.69		0.69			0.69	0.69		69.0
2300 41.9 2300 41.9 1300 41.9 1300 41.9	. 8	:	-			-				71.0			71.0		71.0
2300 41.9 2000 41.9 1800 41.9 1300 41.9	0	2	12.9	2	72.9	;	74.2	74.2					74.2	74.2	74.
2000 41.9 1800 41.9 1300 41.9	1.0	14.8	. 9		8.91	00	78.1						78.1		
1300 41.9 1300 41.9 1000 41.9	9			8									80.0		80.0
1200 41.9	11.6	2	1_	8	8	0							80.0		80.0
1200 41.9	72.3	76.8		80.0	ċ	81.9	81.9	81.9	81.9	81.9		619	81.9	81.9	8
1000 41.9	72.3	16.8	78.	0	100	2.	2		2		10.				82.
	72.9	17.4	4	81.9	6.18		83.9		;		84.5	84.5		84.5	84.
6.14	13.6	18.1	0.0	2.	2.	*		0		5	2.58	1	85.2		85.
0	73.6	78.1	0.0	82.6	83.2	85.8	86.5	87.1	-		87.7	87.7	87.7	87.7	87.
41.9	13.6	78.1	0.08	3.	34.5	1:		00		6	89.0	6	6	89.0	89.
600 41.9	73.6	78.1	0	85.2	85.8	89.0	89.7	0	91.0	91.0	91.0		91.0	0.16	91.
em 41.	73.6	1.81	0.08	3	86.5	6	:	:		3			3.		93.
41.9	73.6	78.1	0.0	85.8	87.1		91.6	92.3		8.46	8.96	8.46	84.8	8.46	94.
14 000	13.6	1.81	0.0	85.8	87.1	6.06	91.6	2		1.96	1.96	1.96	0		96
200 41.9	13.6	78.1	80.0	85.8	87.1		91.6	•	;	97.4	98.1		98.1	98.1	98.
100 41.		1.8	0.0	•	1.10	8006	91.6	6.76	2.76	1.86	98.7	4.66	3.66		000
_	13.6	78.1	0.08	85.8	67.1	0	91.6	92.3	;		98.7	•	39.4	0.00	001

TOTAL NUMBER OF OBSERVATIONS

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CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

73-77

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PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MAR MONTH 13

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		7	-		0 10	6	4 -	0	3	0 4	-	-	7	*	*	-	00	3	-	-	-	~	2	-	-	-	5
	٨١	38	1	8	52	52	58	09	61.	63	69	76	78		4	80	85.	86	87.	87	89.	96	95	98	98	96	Š
	-	-1			2 10	~	* -	0	2	0 4	-	-	-	*	4	-	1 00	5	-	-	1	2	5	7	1		
	AI 3	35	1,1	0 0		52.		90	61.	63	69	76.	8	79.	19.	0	85.	86	87.	87	89	94.	95	86	98	86	
	•				0 0			0	3	0 4	-	-	-	4	3	-	00	2	-	-	-	2	•	-			
	2 5/16	38	-	0	25	52.	58.		61.	68.		76.		79.	6	80	85	86	87.	87	68	94.	98	86		96	
	-	-1			2 10	3	5 -	0	0	. 4	-	-	-	*	3	-	200	2	-	-	~		5	-	-		
	VI X	38	5.5		32.		58.	90	61,	63.	69		8	19.	6	80	85.		87.	-	89		95	86	98	86	
		-1-			0 10	.3	4 -	0	3	. 4	-		-	4			00		-	1	1	2	00	*	4	*	r
	AI AI	38	1	100	52.			09	61	63						80	85.		-		68	76	76	16	97.	97	
		-1-					* -	0	0	D 4	-	-	-	4.	5.	-	. 00	2	-	-			8	*	*	5 4	•
	VI %	38	14	84		25	58	90	919	68	69	16	18	19	0	80	85		87	87	89	76	36	6	41	97	
	_	-1.			0 0	3	* -	0	.3	0 4		-:	-	4	4	-	0	5	-		1.	6.	•	5	. 5	50	1
S	AI	4 7	47	4 4		52	5 2		-	63	0	16			61		2 2		87	87	68	35	63	56	95	6 6	
MILE	7	-1		4	30	.3	* -			0. 4	1.	7		4.	*	-	0 00		7	1.	1.	0	0	9.	9.	0	0
TUTE	AI	38		24	ON	52		00	6	63	69	10	2	4	0	0	8 2	0	~		0		6	6		60	
VISIBILITY (STATUTE MILES)	7.	-1		4 8	30		4 -	0				-	-	3.	5.	-	00		7.	1.	.7	0	0.			0 1	
TI II	AI.	38	4	4	22	~	5 8	0	•	63	69	2	80	0	5	0	8 4	0	87	-	89	16	16	16	16	16	,
VISI	7	1.		4	2 4	4	5 -	0	.3	0. 4	1.			4.	5.			00					0		0	0	•
1	AI	38	47	48	52	52	58	0	-	63	9	76		79			0 00			86	87	89	89			689	
	21/2	-1			0 40		*-					7.				-		7.	. 2	7.	5	7.	-:	-:	.1	-:-	:
	AI	5.7	4 4	4 4		52	2 8		0	6.9	69	76	18	13	61	00	0 30	80	85	83	80	Ø,	87	0	87	100 x	•
						.3	*-			.7				. 1		0	. 6							. 0	. 8		•
	AI	38	3	4 0	52	52	58		9	63	69	7.	F	78	78	80	2 2		8	84	85	85	85	85		00 B	
	•			4.	2.3	2.3	* -			3.2				3.1	. 1		.0		9.	9.	6.1	6.6	6.8	6.1	1.9	3.9	•
	AI	W 4	3		2	S	n so		9	00	9	-	-	-		-	0 00				8	8	00	00	8	6 0	0
	~	1:1		1	3	2.3	4.5	*	7	7.7	0.	3.6	5.5	5.8	9.9	3.	- 4	7.4	4.6	4.	1.1	7.1	1.1	1.1	3.7	7.7	:
	AI	38	-	-									1		1	- 1		F	7	F		8	8	_	_		_
	•	::			51.6	1.6	56.8	8.1	0.09	62.6	3.6	2.3	1.2	5.5	75.5	5.1		78.1	78.1		8.7	6.7	8.7		8.7	•	•
	AI		4,		. L.			1	ō	0 0	9		1		1	- 1	100	1					78			78	_
	9	31.6	9.1	120	2.9	5.9	3.6		5.5	7.4	20		3.4	0.7	0.1	1.3		1.3	1.3	41.3	1.3		:	1.3	1.3		6 . 1
	٨١	n w	10 15		9 17	6	m m	2	m	w w	10	m	2	4	3	3	1 4	3	4	3	4	4.1	3	4	4	3 4	
o z	6	CEILING 20000	18000	1400	8 8	8	900	8	9000	4500	8	3000	8	2000	8	200	1200	8	8	8	8	8	8	8	300	8	,
CEILING	35	NO CE	VI V	1 1	V V	111	AIA	1	I AI	44		1 11	1	1 1		A1	717		IAI		IAI				AI		
		Ž				-		L					_	_				_			_			L			_

TOTAL NUMBER OF OBSERVATIONS

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

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PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

16 HAR

(PEET) NO CEILING 2 20000 2 14000 2 14000 2 12000	61.4													> 5/1/4		
CEILING 20000 18000 16000 12000		9 Al	s Al	4	N AI	2 2%	7	Y 1%	VI 72	ĀI	۸I	*	Z Al		AI	٨١
20000 18000 14000 12000	25.52	39.4	40.1	1.09	1.00	1.04	4004	40.1	40.7	40.1	40.1	40.1	40.	40.1	40.1	.04
18000 14000 12000	30.3	45.8	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	.7.
14000	30.3	45.8	-	47.1	47.1	1.14	47.1	47.1	47.1	47.1	47.1	47.1	1.14	47.1	47.1	*1.
14000	30.3	45.8	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.
12000	31.6	47.1	1 -	48.4	4.84	48.4	48.4		4.8.4	48.4	48.4		48.4	48.4	48.4	48.
	31.6	47.7	0.64	0.65	0.65	49.0	0.65	0.64	0.65	0.64	49.0	0.65	0.64	49.0	0.65	6
10000	32.3	52.9	-	54.8	54.8	24.0	;			54.8	•					54.
900	32.3		-	54.8	54.8			54.8	54.8	54.8	54.8	54.8	54.8	54.8	84.8	54.8
5000	32.3			1.95	1.95	1.96	0	50.1		50.1	26.1		50.1	56.1	50.1	56.
98	32.9	55.5	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	-	57.4	57.4	57.4	57.
9009	95.9		1 -	58.1	58.1	58.1	8	58.1		58.1	58.1		58.1	58.1	58.1	58.
9006	34.8	29.4	-	61.3	61.3	61.3		61.3	61.3	6113	61.3	61.3	61.3	-	61.3	61.
****	34.8	39.4	1 -	61.3			:		:			-		61.3	-	
989	36.8	63.2		66.5	66.5	66.5	66.5	60.3	66.5	•		66.3	66.5	.99	:	66.
3600	37.4	65.8	1 -	1.69			0	70.3		0				.01		10
300	40.04	72.3	75.5	76.1	16.8	76.8	76.8		76.8	76.8	75.8		76.8	76	76.8	76.
2600	40.1	13.6	1 -	77.4		100	00	78.1			1.87			18.		78.
7000	40.7	14.8	-	19.4	80.0	80.0		80.0	80.0	80.0	80.0			80.	80.0	80.
2001	40.1	14.8	1 -			0	0	0.08		80.0				80.		80.
8	41.3	76.1	-	80.7	81.3	81.3		81.3	81.3	81.3	81.3	81.3	:	-	81.3	81.
1200	61.9	16.8	1 -	81.3	81.9			81.9						80	:	81.
8	41.9	16.8	-	6.18	83.9	83.9	3	83.9	3.	83.9	83.9		83.9		83.9	83.
8	6.14	76.8		81.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	3	83.9	83.9	83.9	83.
8	-	16.8		81.9	83.9	84.5		84.5				84.5	84.5	84.5		8
100	6.14	16.8		6118	83.9	84.5	5.	85.2	85.2	85.2	85.2	3.	85.2	85.2	85.2	85.
8		77.4	81.9	83.2	85.8	86.5	87.1	87.1		87.1	87.1	-	87.1	87.1	87.1	87.
	42.6	17.4		83.9	86.5	1.18	6	89.7	89.7	89.7				89.7	90.3	90.
8	N	73.1	82.6	84.5	87.7	99.0		91.5	91.6	9116			92.9	_	93.6	93.
	N	18.1		84.5	87.1	0.69	-		6.76	65.6		2.96	34.2	34.2	95.5	95.
8	45.6	78.1	82.6	84.3	7.78	6	9.16			2	34.5	-	96.1	96.	98.1	98.
8	9.75	18.1	82.6			0.68		65.3	92.9	92.9		94.8	90.8	96.	7.66	66
0	2		-	84.5	87.7	6	:	_	2	2.	94.2		96.8	_	100.0	100

155

TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

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TOTAL NUMBER OF OBSERVATIONS

155

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SMOS DIRNAVOCEANMET

WILLOW GROVE, PENNSYLVANIA

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

22 MAR

CELLING							VISI	BILITY (STA	VISIBILITY (STATUTE MILES)	(\$)						
(FEET)	9	o Al	5 4	**	E AI	> 2%	2 4	¥1 YI	YI XI	Ā	AI	*	Z Al	2 5/16	2	0 11
NO CEILING	40.7		47.7		:		1:			47.7	4.84		69.0		52.6	
2000	43.2	525	52.3	2 6	30	2 0	3	3 2	30		7					53.6
9009	43.2	52	52.3	52.3	3	N	50			2						
	43.9	53.	24.5	*	:		*									55.5
> 12000	45.8	55.	56.1	0	0	0	0	0	0	9	•	•		•	•	57.4
W 1 V	45.5	56.8	37.4	57.4	57.4	57.4	::	57.	57.4	::	58.1	58.1		58.7	58.7	58.7
	49.7	63.	63.9	3	3.	3	3	5								
1 7 7000	49.7	63	64.5	;		. 4	*	;	;	*	•		0		•	66.5
1	50.3	. 90	2.69	•	2	2	2	5	0	2		•				
2000	52.3	90	67.1	•	-	-	٠	-	-	-	•					000
450	52.0		70.3		: -	: -	: :	: -	: -						: 2	
-1	53.6		71.6		2			2		2			4		:	
3000	54.8	73	74.2		in	2	3		3				-		-	
1	54.8	3.	7001	0	9	9	.0		0				0		8	
7 2000	36.1	76.	77.4	0	-	-	-	:	:	-	•		3		3	83.5
085	56.8	15	78.7	40.08	-		-									83.2
	57.4	8	80.0		1 (1)	im	3	3	-	100			5		3	85.8
8 8	57.4	78	80.0		3	-		3	4						-	85.8
1	57.4	78.	80.0	6118		20	3	3.	3	3.	84.5		0		85.8	85.8
80	57.4	78.	80.0	:	3.	3	3	3	3	9		3	•			85.8
88	57.4	70.	80.7	82.6	3 8	2 4 K		2 4 5		* 4		6 9			87.7	87.7
	57.6	19.6/	80.	1 2	: 6	. 9		:	:	:			6		89.7	89.7
VI VI		79.4	80.7				00	6		0	:	-	3		92.3	92.3
88	57.4	79.4	81.9	85.2	87.7	0.68	90.3		91.0	91.6	93.6	93.6	94.8	93.6	93.6	93.6
		19	6.18	0	:	6	0	1:	:	2.					1.96	1.96
1 1 1	57.4	79.	61.9	en en	87.7	0	ò	-	-	3		:	9	•	47.4	0000

155

TOTAL NUMBER OF OBSERVATIONS

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14793

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CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

14793

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WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL ALL TAR.

**************************************		0	43.6			49.6		52.3	56.7	56.7	62.1	63.4	64.5	66.5	68.3	71.2	72.7	75.8	7.5	49.6	80.4	81.9	83.3	85.1	85.3	86.4	87.2	88.6	0116	92.4	94.3	1006	00.00
TRUNG 2 10 2 4 2 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			43.6	.5	9	9.	6.0	2.3	1.9	6.7	2.0	3.3	6.3	2.9	1.8	0	. 5	9.	.3		0.2	1.7	3.0	4.8	0.0	-	6.0	8.2	_		63.6	95.7	7.87
CERLING 22.7 42.4 42.9 43.4 43.4 43.4 43.4 43.4 43.5 43.5 43.5			*	6			.0	2.	56.7	. 9	2.	3	*	•		:	2.	3.	-	0	80.5	81.7	83.0						.0	:	93.7	3	10
Parith P				•	•	•	0	52.3	20.7	56.7									11.3	79.7	80.2	81.7	83.0	84.8	85.0	86.1	86.9	88.2	60.0	6116	93.7	95.4	
TEURING 20 26 25 24 42.0 43.1 43.2 43.4 43.4 43.4 43.4 43.4 443.4		100	3.																			81.5	85.8	84.6	84.8				2.06			34.4	::
TITING 2-10 2-6 2-5 2-7 43-6 43-6 43-6 43-6 43-6 43-6 43-6 43-6			3.	6							-	3	:			0			1		0			100	•	•	•	•	2.06	61.5	93.2		94.7
THING SET 10 2 6 25 2 4 27 43.4 43.2 23.6 22.7 42.4 42.9 43.1 43.2 43.4 43.4 43.2 20000 35.7 48.2 48.8 49.0 49.1 49.2 49.4 49.1 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 38.9 54.4 55.4 55.4 55.9 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.4 59.7 59.9 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.7 59.9 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.7 59.9 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.7 59.9 56.1 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.4 59.4 59.4 59.2 49.0 49.2 76.5 77.2 78.2 78.2 78.2 78.2 78.2 78.2 78.2	(53		3.	0	6	6	0	2.	9	56.	61.	63.	. 49	65.	67.	70.	2.		0	6	6	-	5.	;	*	3	0		6	0	5	2	30
THING SET 10 2 6 25 2 4 27 43.4 43.2 23.6 22.7 42.4 42.9 43.1 43.2 43.4 43.4 43.2 20000 35.7 48.2 48.8 49.0 49.1 49.2 49.4 49.1 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 38.9 54.4 55.4 55.4 55.9 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.4 59.7 59.9 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.7 59.9 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.7 59.9 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.7 59.9 56.1 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.4 59.4 59.4 59.2 49.0 49.2 76.5 77.2 78.2 78.2 78.2 78.2 78.2 78.2 78.2	ATUTE MIL			•	4.64	49.4		52.2	\$6.4	56.4	61.5	62.8	63.8	55.7	67.5	70.4			76.7	79.1						2	5	-		0			91.1
THING SET 10 2 6 25 2 4 27 43.4 43.2 23.6 22.7 42.4 42.9 43.1 43.2 43.4 43.4 43.2 20000 35.7 48.2 48.8 49.0 49.1 49.2 49.4 49.1 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 35.7 48.2 48.8 49.0 49.2 49.4 49.9 10000 38.9 54.4 55.4 55.4 55.9 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.4 59.7 59.9 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.7 59.9 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.7 59.9 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.7 59.9 56.1 56.1 56.1 56.2 10000 42.4 59.4 59.4 59.4 59.4 59.4 59.4 59.2 49.0 49.2 76.5 77.2 78.2 78.2 78.2 78.2 78.2 78.2 78.2	ISIUTY (SI		3	49.4	49.4		0	2			:	2	3.	2			:	2			6	-		*			85.7	87.1			40.1	91.1	
CELLING 32.7 42.4 43.1 43.2 43. 22% 20000 35.7 48.2 48.7 49.0 49.1 49. 18000 35.7 48.2 48.8 49.0 49.2 49. 18000 35.7 48.2 48.8 49.0 49.2 49. 18000 35.7 48.2 48.8 49.0 49.2 49. 19000 35.7 48.2 48.8 49.0 49.2 49. 19000 35.9 54.4 55.4 55.7 55.9 56. 19000 35.9 54.4 55.4 55.7 55.9 56. 19000 35.9 54.4 55.4 55.7 55.9 56. 19000 35.9 54.4 55.4 55.7 55.9 56. 19000 42.4 60.4 61.0 61.9 62.3 62.3 62.3 62.3 62.3 62.3 62.3 62.3	VIS			6	6			5	9	.9	.19	62.	63.	65.	67.	70.	-	;		6	6	0				•					6	6	66
TEUNG FEFT) ZE 10 Ze			43.4			•	50.7	52.1	56.1	0	1.	2	3	3		6		•			0	0	-	5	3	9	. 49	5	.0	9	87.2	87.2	
TEING FEET) 2 10 2 6 25 2 4 43.00000 35.7 48.2 48.8 49.8 49.8 150000 35.7 48.2 48.8 49.8 15000 35.7 48.2 48.8 49.8 15000 35.7 48.2 48.8 49.8 15000 35.7 48.2 48.8 49.8 15000 35.7 48.2 48.8 49.8 15000 42.4 60.4 61.6 61.6 61.0 60.4 60.4 60.4 60.8 60.4 60.8 60.0 42.7 61.0 61.0 61.0 61.0 61.0 61.0 61.0 61.0			3	6		6		:	3	5	-	5.	3.	;	9			•	2	8	8	6		~		3	3.	;	85.1				
TELING FEET) 2 10 2 6 2 5 2 5 200000 35.7 48.2 48.2 48.2 18000 35.7 48.2 48.2 48.2 48.2 18000 35.7 48.2 48.2 48.2 48.2 18000 35.7 48.2 48.2 48.2 48.2 48.2 48.2 48.2 51.2 50.2 51.2 51.2 51.2 51.2 51.2 51.2 51.2 51		7 1	43.1	0.64	0.64	•	50.3	51.8	53.7	55.7	1009	61.9			4.99	69.1	10.6		75.2	77.2			19.1		81.0	81.3	81.6	82.3	82.7	82.9	33.1	83.1	
TEET) 2 10 2 6 CEILING 32.7 42.2 20000 35.7 48.3 18000 35.7 48.3 18000 35.7 48.3 18000 42.4 60.3 18000 42.4 60.3 18000 42.4 60.3 18000 42.4 60.3 18000 42.4 60.3 18000 42.4 60.3 18000 42.4 60.3 18000 42.4 60.3 18000 42.4 60.3 18000 42.4 60.3 18000 42.4 60.3 18000 42.4 60.3 18000 42.4 60.3 18000 42.5 64.3 18000 44.5 76.3 18000 49.0 76.3 18000 49.2 76.3 1800 49.2 76.3 1800 49.2 76.3 1800 49.2 76.3 1800 49.2 76.3 1800 49.2 76.3 1800 49.2 76.3 1800 49.2 76.3		1000	42	40	48.	48.	20	21	3	55.	09	61.	62.	. 49	65.	68.	69	72.	-	.0	:	~	*	•			19.7	:		:	80.7	80.7	80.7
CELLING 25.10 CELLING 25.10 CELLING 25.10 CELLING 35.11 CELLING 45.11 CELLIN			42.	48	60		63	200	54.	54.	59.	9	5	62.	64.	66.	67.	0	=	73.	13.	74.	15.	76.	1	9	16.	76.	16.	76.	16.	76.	76.
CHILING CHI		5				•																•	•	•				•				•	
	CEILING	(FEET)	NO CEILING	> 20000									1								1												

0

TOTAL NUMBER OF OBSERVATIONS

3

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

0

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

10 APR

CEILING							VISI	NUTY (ST	VISIBILITY (STATUTE MILES)	S						
(FEET)	2	o Al	5 41	7	21	2 2%	7 7	V 1%	71 71	-	* 1	*	K Z	2 5/16	AI N	0 11
NO CEILING	47.3	57.	57.3	57.3	57.3	57.3	7	51.3		57.3	-	57.3			-	57.3
> 20000	48.7	609	2009	61.3	-	61.3	61.3	61.3	61.3	÷	61.3	61.3	61.3	61.3	61.3	61.3
	48.7	.09	2009	61.3	-	61.3	-	61.3	-			6119	:	-	-	61.3
N 16000	48.7	00	60.7	61.3	-	61.3	-	61.3		-	61.3	6113	-	-	-	61.3
	49.3	0.10	61.3	0.29	7	0.79		0.29			0.29	0.29	7	7	7	955.0
12000	50.7	62.	62.7	63.3	~	63.3	1	63.3			•	63.3	3	3	63.3	63.3
	24.0	67.	67.3	0.89	68.0	0.30	0.89						0.89	0.80	0.89	68.0
0006	54.7	68		69.3	69.3	3	69.3	69.3				69.3	69.3	6	0	69.3
	57.3	11.		13.3	14.0	-	0.51							*	0.01	
7000	57.3	==	72.7	73.3	14.0	0	74.0	74.0						,	74.7	74.7
1	56.3	74.		76.0	76.7		1607						1	-	-	
2000	60.7	75		77.3	78.0	_	78.0	78.0						8	78.7	78.7
	0.79	16.		78.7	19.3	6.6	19.3	6.		0			0	0	0	
1 41	62.7	78		80.0	1.08	1.0	80.7	0		-			-	:	-	
	62.7	78.		80.7	61.3		81.3	-		2.		82.0	2	2.	7	82.0
3000	62.7	78			1	5.0	82.0					82,7	N	82.7	82.7	82.7
	63.3	80.		82.1			83.3	83.3					84.0	3	84.0	84.0
7 2000	64.7	81.		84.7	5	5.3	86.0	86.0		86.7	86.7		86.7	86.7	;	86.7
	24.7	81.			85.3			86.0		9			0	0	0	86.7
98	0.99	84.			88.7	8.1		89.3		0	•		0	0		0.06
	0.99	84.			69.3	6.6		1.06		-			-	-	616	91.3
98	0.99	84.		83.3	0.06	1006		92.7			63.3		3	3	93.3	93.3
	0.99	84.			0.06	-		2		3			3	10		93.3
8	0.99	84.			0.06	2006		92.7		3	93.3		93.3	3	93.3	93.3
	0.99	94.		89.3	0.06			4.76				93.3	3	3.		93.3
8	66.7	84.		0.06	6116	92.7		1.76	•	m,	95.3	95.3	95.3	2	65.3	95.3
	66.7	84.		1.06	92.0	3.3					0.96	0.96	0	0		0.96
8	66.7	84.		2006	95.0	63.3		0.96	1.96		1.96	1.96	1.96	1006	1.96	96.7
	66.7	63		611.3	92.7	01		61.3	•			48.7	98.7		1.86	98.7
1 200	66.7	65		91.3	63.3	1.56		0.86		66.3	86.3	99.3	66.3	66.3	66.3	99.3
8	56.7	65.3	0.06	6.16			0.86	0.86	1.86	66.3	66.3	6.66	666		99.3	000
1	.00	•		71.0	20.0	100	.	30.0	100	44.3	17.3	77.3	77.3	77.3	77.5	0000

0

TOTAL NUMBER OF OBSERVATIONS

150

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NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

0

0

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

90 APR

CEILING							VISIA	VISIBILITY (STATUTE MILES)	ATUTE MILI	(53						
(FEET)	0 1	9	8 21	41	12	≥ 2%	2 4	2 2	71	Ā	AI	*	2 Al	2 5/16	AI	٨١
NO CEILING		50.7	51.3	52.0	52.0	2	52.0	2		2.		NO	1.26	1.		53.3
7 2000		•	•			0 0			. 0	, 0	•	- 0	-	200	•	0000
00091	1 4	56.7	000	58.7	58.7	7.00	58.7	59.0	59.3	200	39.3	59.3	59.3	59.3	59.3	600
				0	0	0	0	0	0	0		0	6	0.1		61.3
17000			64.7	65.3	5	65.3	65.3		. 9	.9	0.99	0.99		0.		66.7
1			0.99	1.99	1.99	9	1.99							1.3		68.0
0006 2			2.99			2	-	8	8	8	•	•	8	8.0	•	68.7
1			10.1		71.3	-		7		~		2.		5.0		72.7
2 7000			72.7	3		3	•			;	•	•		4.0		74.7
			0.4				*	5	2	5	15.3	3	2	5.3		76.0
2000			74.7		5			•	9	9	•	•	0	0.0		76.7
			77.3	*					00			80	8			79.3
9004 1 A1			78.7	10.3	19.3		79.3	0		0		0		0.0		80.7
			6.61	0			0	:	-	-		-	:			82.0
3000			81.3	2	2.				3	*		3	3	3.3		84.0
			82.0	2						;		*	*	0		84.7
1 2000			84.7					-	•			87.3	-	7.3		
			1.40		85.3				-		87.3	-		.3	87.3	
1500			0.98	86.7	86.7			8	8			88.7		8.7	88.7	89.3
1200			86.0	86.7	36.7			8			8	80		8.7		89.3
1000			86.7		87.3	•					0	0.06	0	0.0	0.06	
									6	0	0	0	0	0.0		90.7
80			88.0		88.7			-	5		5	N	3	2.7		
			88.0	88.7	38.7			:	2		2	2	7	2.7		93.3
8			88.7						3			4	;	0.46	0.46	
			88.7	0	0		92.7				3	1	5	5.3		0.96
141			88.7		90.0		93.3	0.46	4.1	68.3	•			0		96.7
			88.7	0	1.06	•	0.76	;				:		1.3	97.3	98.0
7 200			88.7	0	1.06			;	95.3				8	98.7	98.7	99.3
82	62.0		88.7	•	1.06	95.0	0.96	1.46	65.3	1.96	0.86		48.7	98.7	48.7	99.3
			88.7	60.1	1006			2.56	95.3	1.96	•	•	98.7	98.7	98.7	00.0

TOTAL NUMBER OF OBSERVATIONS

150

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NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

07 wound APR

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CERING 34.0 Year	CEILING							VISI	BILITY (ST.	VISIBILITY (STATUTE MILES)	(5)						
24.7 50.7 54.0 34.7 50.7 52.7 52.7 52.7 52.7 52.7 52.7 52.7 52	(FEET)		1	8 41	1	1			1	,	1	1	1	1			
34.7 50.7 54.0 54.7 56.0 55.0 55.0 55.0 55.0 55.0 55.0 55.0	NO CEILING	34.0	4 8				2		2.		2.	2.	2 .	7	2.	2	
34.7 50.7 54.0 54.0 54.0 54.0 56.0 56.0 56.0 56.0 56.0 56.0 56.0 56		34.7	50		*			.0		. 9	9	•	•		;	20.1	56.7
10000 34, 7 50, 7 54, 0 54, 7 56, 0 56,	× 18000	34.7	50		54.1		0			0	9	20.0	•	0		56.7	56.7
19000 39.3 52.0 55.3 56.0 57.3 57.3 57.3 57.3 57.3 57.3 57.3 57.3		34.7	S						•	9	•		•	0	•	20.1	56.7
35.3 52.0 55.3 56.0 57.3 71.3 57.3	7 14000	35.3	52		0	57.3			1.		-	-	-	1.			
1900 38.7 58.7 62.7 63.3 64.0 66.0 66.0 66.0 66.0 66.0 66.0 66.0	12000	35.3	52			57.3			-	-	-	-	-	-		•	
39.3 54.7 58.7 63.3 64.0 66.0 66.0 66.0 66.0 66.0 66.0 66.0		38.7	58		3		5	65.3		3	5.		5	5	-		
39. 39.4 64.0 68.7 69.3 71.3 71.3 71.3 71.3 71.3 71.3 71.3 71		38.7	3		4			.9		9	•	•	•	;	0	;	66.7
39.3 64.0 68.7 69.3 71.3 71.3 71.3 71.3 71.3 71.3 71.3 71	1	39.3	0.49		0			71.3		-	=				-		72.0
41.3 67.3 72.7 73.3 75.3 75.3 75.3 75.3 75.3 75.3 75		39.3	99		0					-	-			:	71.3		72.0
42.7 68.7 74.0 75.3 76.0 76.0 78.0 78.0 78.0 78.0 78.0 78.0 78.0 78	1	41.3	0		3.	10		1			5		5	2	15.3		76.0
43.00 44.0 70.7 76.0 77.3 80.0 80.0 80.0 80.0 80.0 80.0 80.0 80		42.7	68		5	00		0				8	8	8	78.0		
44.0 70.7 76.0 77.3 60.0 80.0 80.0 80.0 80.0 60.0 80.0 80.0		43.3	10			19.3		0		6		6	6		0	0	0
3500 46.7 71.3 76.7 78.0 61.3 61.3 61.3 61.3 61.3 61.3 61.3 61.3		44.0	70.			0		0		0				0	80.0		0
3000 46.7 73.3 79.3 80.7 64.0 84.0 84.0 84.0 84.0 84.0 84.0 84.0 8		44.	11.3			-		-		-				:	81.3	2	82.0
47.3 74.7 30.7 82.7 84.0 87.3 87.3 87.3 88.7 88.7 88.7 88.7 88.7		46.7	73.3		0	3		4		3				;	84.0	4	84.7
2000 48.0 76.7 82.7 84.0 87.3 87.3 87.3 88.7 88.7 88.7 88.7 88.7		47.3	4.		h	65.3		5	0	0	9	0	86.0	0	9		
1800 48.0 76.7 82.7 84.0 87.3 87.3 87.3 88.7 88.7 88.7 88.7 88.7		0.84	76.			2		-	88.7	8	200	8	8		00	89.3	
1200 48.0 76.7 82.7 84.0 87.3 87.3 87.3 88.7 88.7 88.7 88.7 88.7		0.34	16.	82.7	7	87.3			88.7	80		0	1	8	88.7	5	
48.0 76.7 52.7 84.0 37.3 67.3 88.7 88.7 88.7 88.7 88.7 88.7 88.7 8		48.0	76.		3	F				20		00	œ			5	
48.0 78.0 84.0 85.3 89.3 89.3 89.7 90.7 90.7 90.7 90.7 90.7 90.7 90.7 9		48.0	16.	1.79	0.48	37.3				00		88.7	8	2	88.7	89.3	
48.0 78.0 84.0 86.0 90.0 91.3 91.3 91.3 91.3 91.3 91.3 91.3 91.3 91.3 91.3 91.3 91.3 91.3 91.3 91.3 92.0 <th< td=""><td></td><td>48.0</td><td>78</td><td></td><td></td><td></td><td>6</td><td>0</td><td></td><td>0</td><td></td><td>1.06</td><td></td><td>0</td><td>1006</td><td>91.3</td><td>91.3</td></th<>		48.0	78				6	0		0		1.06		0	1006	91.3	91.3
48.0 78.0 84.7 86.7 90.7 90.7 92.0 92.0 92.0 92.0 92.0 92.0 92.0 92.0		46.0	18.			•	0				-	91.3			-	2.	
700 48.0 78.0 84.7 86.7 91.3 91.3 92.7 92.7 92.7 92.7 93.3 93.3 93.3 93.3 94.0 94.0 94.7 92.7 94.3 95.3 95.3 95.3 95.3 95.0 96.0 96.0 96.0 96.0 96.0 96.0 96.0 98.0 98.0 98.0 98.0 98.0 98.0 98.0 98		48.0	78.			0	0	0	92.0		2	2			2.		N
48.0 78.0 85.3 88.0 93.3 94.0 94.7 96.0 96.7 96.7 96.7 96.7 95.3 95.3 95.3 95.3 96.0 96.0 96.0 96.0 96.7 96.7 97.3 97.3 97.3 97.3 98.0 98.0 98.0 98.0 98.0 98.0 98.0 98.0		48.0	18.			6116	91.3	-	45.7		92.7	1.26	10		3.	0.06	
48.0 78.0 85.3 88.0 93.3 94.0 94.7 96.0 96.7 96.7 97.3 97.3 97.3 97.3 98.0 98.0 98.0 98.0 98.0 98.0 98.0 98.0		48.0	78			2		N			4.7	1.46	5	5	10		9
48.0 78.0 85.3 88.0 93.3 94.0 94.7 96.0 96.0 96.7 97.3 98.0 98.0 98.0 98.7 98.7 98.7 98.7 98.7 98.7 98.7 98.7		48.0	18.			93.3		4				36.7	-			0.86	8
200 48.0 78.0 85.3 88.0 93.3 94.0 94.7 95.0 96.0 96.7 98.0 98.0 98.7 98.7 99.3 9 200 48.0 78.0 85.3 88.0 93.3 94.0 94.7 95.0 96.0 96.7 98.0 98.7 98.7 98.7 99.3 9 100 48.0 78.0 85.3 88.0 93.3 94.0 94.7 95.0 96.0 96.7 98.0 98.7 98.7 98.7 99.310		48.0	78.0		8	63.3		4					00			m	
200 48.0 78.0 85.3 88.0 93.3 94.0 94.7 96.0 96.0 96.7 98.0 98.7 98.7 98.7 99.3 9 9.3 10 48.0 78.0 85.3 88.0 93.3 94.0 94.7 96.0 96.0 96.7 98.0 98.7 98.7 98.7 99.3 10		48.0	18.0	85.3	88.0	63.3		3		0	1.96		00			1.86	
0 48.0 78.0 85.3 88.0 93.3 94.0 94.7 96.0 96.7 98.0 98.7 98.7 98.7 99.31			78.0	85.3		63.3	*			0			00	98.7	98.7	6	99.3
0 48.0 78.0 85.3 88.0 93.3 94.0 94.7 96.0 96.0 96.7 98.0 98.7 98.7 98.7 98.7 99.310			78.0	83.3	8		. 4	1.56		9	1096		1.86	1006			0.001
		8		85.3	00		*			9			98.7	98.7	98.7	6	0.001

150

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TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

01 STO APR

9886

CEILING							VISI	VISIBILITY (STATUTE MILES)	NTUTE MILI	(S)						
(FEET)	5 41	9 11	so Al	4	e Al	≥ 2%	7	VI 24	¥1 ¥1	-	₽ Al	* Al	VI %	≥ 5/16	AI N	AI
NO CEILING	33.3	51.3	50.0	54.7	51.3	54.7	51.3	51.3	54.7	54.7	51.3	54.7	51.3	54.7	51.3	51.3
00001	35.3	1			54.7	54.7	54.7	54.7		4	54.1	-	54.7	54.7	54.7	54.7
1 1 1	35.3		53.3	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7
	35.3	1	24.0	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3		55.3	55.3	55.3
7 12000	35.3		54.0	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55,3	55.3	55.3	55.3	55.3
	38.0	1	58.0	59.3	59.3	59.3	59.3	59.3	59.3	56.3	6	•	59.3	59.3	59.3	59.3
0006	38.0		58.7	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0	0.09	0000	0000
	38.7	,	1.09	62.0	62.0	62.0	62.0	0.29	62.0	62.0	95.0	0.20	95.0	62.0	95.0	62.0
141	38.7		61.3	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	2	62.7	62.7	62.7
	38.7		0.49	65.3	65.3	65.3	65.3	65.3	0		65.3	65.3			65.3	65.3
2000	40.0		0.89	69.3	69.3	70.0	70.0	20.07	70.0	20.0	0	70.0	0	70.0	0	70.0
	40.1		10.0	71.3	71.3	72.0	72.0		7		7	12.0	7		72.0	72.0
1 41	44.7		74.0	75.3	75.3		76.0	76.0	76.0	76.0	76.0	76.0	76.0		76.0	76.0
1	47.3		18.0	6.64	19.3	80.0	80.0	80.0	80.0	90.0	80.0	80.0	80.0	80.0	80.0	80.0
3000	48.7		83.3	84.7	84.7	85.3				•	86.0	86.0		86.0		86.0
1	66.3	1	84.7	0.98	86.0	1.98	87.3	87.3	87.3	87.3				87.3	87.3	87.3
7000	49.3		86.0	87.3	88.0	88.7	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	•	89.3
	6.64	80.7	86.7	0.88	88.7	89.3	0.06	0.06	30.0	0.06	0.06	0.06	0	0.06	0.06	0.06
171	50.0	82.0	88.0	89.3	0.06	2005	61.3	91.3	91.3	61.3	61.3	91.3	-	91.3	61.3	91.3
	20.0	62.7	88.7	0.06	1.06	6116	0.26	0.76	0.26	95.0	95.0	0.26	2	95.0	0.26	92.0
1 1 1	50.0	84.0	0.06	91.3	1.26	93.3	0.56	0.46	0.46	0.46	0.46	0.46	;	0.46	0.46	0.46
	20.0	0.40	0.06	91.3	63.3	34.	95.3	65.3	95.3	6.56	95.3	65.3		95.3	95.3	95.3
8	50.0	84.0	0.06	91.3	63.3	1. 56	95.3	65.3	65.3	65.3	95.3	95.3		95.3	95.3	95.3
	20.0	84.7	1.06	92.0	0.46	65.3	0.96	0.96	0.96	96.0	0.96	0.96	0	0.96	0.96	96.0
8	50.0	64.7	2.06	0.26	0.46	6.56	0.96	0.96	0.96	0.96	0.96	0.96	0.96	96.0		0.96
	20.0	84.7	1.06	92.0	0.46	95.3	0.96	0.96	0.96	0.96	0.96	0.96	0	0.96		0.96
141	50.0	84.7	1.06	92.0	0.46	95.3	0.96	0.96	0.96	0.95	0.96	0.96	.0	0.96	0.96	0.96
	20.0	84.7	40.1		0.76		61.3	97.3				97.3	0.86		0.86	98.7
141	50.0	84.7	1006		0.46	95.3	97.3	98.0	8	96.0	0.86	98.0		66.3	99.3	0000
	20.0	4.7	1.06	92.0	4	626	61.3	0.86		٠ ش	00	•	99.3		66.3	0000
٨١		84.7	1.06	95.0	0.46	95.3	61.3	0.86	0.86	98.0	0.86	0.86	6.66	666	99.3	0000

150

TOTAL NUMBER OF OBSERVATIONS

8898

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

1 5 1) SENOR APR -

CEILING							VISI	BILITY (ST.	VISIBILITY (STATUTE MILES)	Si Si						
(FEET)	5 1	» Al	S	7	e 1	> 2%	12 2	VI 72	¥1 ¥1	-	N AI	₩ Al	Z AI	≥ 5/16	N N	O AI
NO CEILING	36.0	43.3	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	\$2.0
V 18000	30.0		52.0	52.0				2.			7	52.0	52.0	2	52.0	52.0
14000	35.0		52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	2.	52.0	52.0
> 14000	36.0	6	25.0	52.0		22.0	52.0	25.0				0.76	95.0	2.		52.0
12000	36.0		53.3	53.3		53.3		53.3		53.3		53.3	53.3	53.3	53.3	53.3
	35.7	52.7		56.0	56.0			50.0		9	56.0	0	36.0	9		56.0
8		54.0	57.3	57.3	57.3	57.3	57.3	57.3	57.3	-	57.3	57.3	57.3	57.3	57.3	57.3
1	40.4	58	2	62.0	62.0		2.	2		2		0.79	62.0	2.		62.0
141	40.7	59.3	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7		62.7	62.7	62.7	62.7
1	0.75	62	9	0.99				0.99	0.99	9	0.99	5	0.00	0.99	0.99	66.0
900	45.0	55	66.7	66.7	1.99	66.7	1.99	66.7	66.7	66.7		66.7	66.7	66.7	66.7	66.7
1	42.7	90		68.7	1.89	68.7		68.1	68.7	80	68.7	8	68.7	68.7	68.7	68.7
141	46.7		74.0	74.0	74.0	74.0		74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
1	20.0	72.	78.0	78.0	78.7	18.1	78.7	78.7	78.7	00	78.7	78.7	78.7	78.7	78.7	78.7
300	52.7	78	83.3	83.3	85.3	88.3	85.3	85.3	85.3	5	85.3	85.3	85.3	85.3	85.3	85.3
1 -	53.3	80.	86.0	0.98	88.0	63.0	0.88	0.88		8	88.0	0.88	88.0	88.0		88.0
300	54.0		88.0	88.0	0.06	40.1		40.7	7.06		7.06	1.06	7.06	90.7	7.06	90.7
	24.0	8	0.88	88.0	0.06	0	1.06	1.06	40.7	0	1.06		40.4	1006	1.06	90.7
200	54.0	81.	88.0	88.0	0.06	1.06		1006	7.06	0	1.06	2006	90.7		1006	90.7
	24.0	81.	88.7	88.7	1.06	51.3	616	61.3		-	6116	6116	6116		6116	6116
1 11	54.0	61.	88.7	88.7		95.0	92.0	92.0	92.0		92.0	92.0	92.0	92.0	92.0	92.0
	24.0	81.	88.7	1.88	1.06	95.0	92.0	0.26		2.	0.76	0.26	0.26	0.26	0.26	92.0
8	24.0	81.3	0.06	40.1	1.26	0.46		0.46	0.46		0.46	0.46	0.46	;	0.46	94.0
	24.0	8	0.06	1.06	92.1		1.46	95.3	95.3	65.3	2					95.3
8		81.3	0.06	1.06	63.3	95.3		0.96	0.96	•	0.96	0.96	0.96	•	0.96	96.0
		81.3	0	1.06	63.3	95.3	95.3	0.96			0.96		0.06	0.96	0.96	96.0
141	54.0		0.06	1.06	0.46	0.96	0.96	7.96	7.96	7.96	1.96	196.1	7.06	96.7	7.96	96.7
		81.3	0.06	1.06	0.46			97.3	97.3		0.86	0.86	1.86	98.7	1.86	98.7
8	54.0	81.3	0.06	2006	0.46	87.3	81.3	0.86	0.86	98.0	186	98.7	99.3	80.3	66.3	99.3
	24.0	-	0.06	1.06	0.46		81.3	0.96	0.06	•		1.96	8.66		0000	0000
0		81.3	0.06	1.06	0.96	97.3	97.3	0.86	0.86	0.86	1.86	1.86	66.3	86.3	00.00	00.00

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TOTAL NUMBER OF OBSERVATIONS

150

11111

0

0

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLUM GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

16 APR

CEILING							VISIA	BILITY (ST.	VISIBILITY (STATUTE MILES)	Sî.						
(FEET)	5 7	41	5 41	**	1 3	≥ 2%	2 2	41.4	¥1 VI		AI AI	*	2 1	2 5/16	AI	0 11
NO CEILING		4	1	46.1	46.1	46.1		46.7	46.7	1.95	46.1	4.0.1	46.7	46.7	46.7	46.7
2 20000	33.3	49.3		51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3
			50	51.3	51.3	51.3	:	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3
00091		49.3		51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3
		6	50	51.3	51.3	51.3		51.3	51.3	51.3	51.3	-	51.3	51.3	51.3	51.3
> 12000		49.3		51.3	51.3	51.3	51.3	51,3	51.3	51.3	51.3	-	51.3	51.3	51.3	51.3
1			55	26.0	26.0	26.0	9		0	26.0		5		9		56.0
9006	34.7	53.3	55	26.0	26.0	90.09	26.0	26.0	99.0	96.0	26.0	26.0	26.0	56.0	26.0	26.0
	34.7	54.	56.	57.3	-	57.3	-		57.3	57.3	-	-			•	57.3
980	35.3	55.3	37	58.0	58.0	58.0	58.0	58.0		58.0	•		58.0	58.0	58.0	58.0
1	39.3	1	63	0.49					4		0.49			4		0.49
9005 1 A1	40.0			65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	2	65.3	65.3	65.3	65.3
1	40.1	1	66.	67.3	68.0	68.0				68.0	0.89	0.89				68.0
900	44.0		74.	75.3	76.0	76.0	•	76.0	76.0	76.0	76.0		76.0		76.0	76.0
1	47.3	•	6	0.08	80.7	61.3	-	:		81.3	-		:			81.3
3000	51.3	82.0	9.4	85.3	86.7	87.3	87.3	87.3	87.3	87.3	87.3	87.3		87.3	87.3	87.3
	51.3	1	85	86.0	87.3		8	0.88		88.0	8					88.0
3000	52.0		86.	87.3	89.3	0.06	0				0.06		90.0	0.06	0.06	0.06
	52.7	1	87.	0.88	0.06		0	1.06	•	1.06	1.06	1.06	0		40.1	40.1
1500	52.7		88	88.1	1.06	61.3		91.3	91.3	-	91.3	91.3	61.3	91.3	91.3	91.3
	52.7	1	88	89.3	61.3		92.0	0.26	92.0	95.0	95.0	0.26	0.26		92.0	0.26
98	52.7		92.	92.7	1.46	85.3			95.3	95.3	95.3		95.3	95.3	65.3	95.3
	52.7	Į.	35	92.7	1.76	95.3	65.3	65.3		68.3		95.3	95.3	95.3	95.3	95.3
8	52.7	00	0.26	42.7	1.96	95.3	95.3	89.3	95.3	95.3	95.3	88.3	95.3	95.3	95.3	95.3
1	52.7	00	0.26	45.7	1.46	0.96		0.96	0.96	9	0.96	0.96	0.96	0.96	0.96	0.96
8	52.7		92.0	92.7	1.96	0.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1096	1.96	96.7
	52.7	}		92.7	1.75	0.96	40.7	46.7	1006	9		97.3	61.3	61.3	61.63	97.3
8	52.7	68	-	93.3	65.3	1.96	61.3	97.3	97.3	97.3	98.0	98.0	98.0	98.0	98.0	98.0
	52.7	100		63.3	3	6.16	0.86	0.86	0.86	0.86	1.86	48.7	1.86	98.7	48.7	98.7
8 14	52.7	60		63.3	0.96	98.0	7.86	1.86	1.86	98.7	86.3	99.3	99.3	83.3	66.3	99.3
8	25.7	-	15.7	63.3	0.96	0.86	1.96	1.86	1.86	48.1	5.66	66.3	99.3	66.3		0000
0 1	52.7	89.3	92.1	63.3	0.96	78.0	1.86	1.96	18.7	1.86	66.66	99.3	99.3	88.3	0.00	0000

150

TOTAL NUMBER OF OBSERVATIONS

14793

0

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74.0

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

HOURS (L S T MOMTH 6

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APR

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

VISIBILITY (STATUTE MILES)

63.3 63.3 54.1 2 63.3 *

> 63.3 63.3

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(FEET)

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NO CEILING

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63.3

63.3 63.3

63.3

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0.89 68.7 65.3 65.3 73.3 16.1

73.3

73.3

13.3

73.3

73.3

73.3 73.3 73.3 74.0 74.0

72.7

11.3

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58.7

68.7 6.81

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39.3

12000

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14.0

14.0

74.0

74.0 74.0

68.7

0.89

65.3

78.0 74.0 73.3 68.7 76.7 78.0 73.3 82.0 74.0 0000 16.1 82.0 74.0 74.0 74.0 78.0 78.0 78.0 80.0 80.0 80.0 80.0 82.0 82.0 13.3

1601

16.7

16.1

1601

16.1

1.91 77.3 78.0

0.91

15.3 76.7

0.5/ 75.3

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2000

ALAI

72.0

7000

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78.0

78.0 78.0

80.0

80.0 82.0

80.0 82.0

80.08 80.08

19.3

18.

17.3

0.94

78.0

80.0

80.0 88.7 84.7

84.7

84.7

84.7 82.0

84.7

84.7

82.0 88.0

82.0

81.3

80.7

79.3 81.3

47.3

4500

ALAI

0.84 48.7

3300

MIM

84.0

82.7

88.7

88.7

88.7

82.0

82.0

82.0 84.7 88.7 91.3 1.06 40.7

88.7

90.

61.3 91.3 88.7 61.3 84.1 92.7 84.7 6113 6113 6113 88.7 88.7 88.7 1.06

91.3 6116 95.3 95.3 92.7 92.7 1.76

> 92.7 1.26

92.7

92.7 92.7

92.0

95.0

95.0 95.0

91.3

90.7

88.0 89.3

41.3

1.06

89.3

38.0

85.3

6.65

106

1.06

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95.3 95.3 95.3 95.3 95.3

98.3

95.3

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7.40 0.46

92.0

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89.3

86.7 86.7

6.65

8 8

ALAI

92.7

95.0

0.26

95.3

92.7

91.3 51.3

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91.3

7.06 40.7

90.7

20.0 90.7

90.1

1006

0.06

0.06

0.06

86.0 87.3 88.7 89.3

88.0 89.3 88.0 89.3

86.7

84.7 84.7 85.3

49.3 49.3 6.64

2500

AI AI

1300

AI AI

0.48

49.7

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86.7

87.3

84.7 86.0

1006

92.7 95.3

0.96 96.0

96.0 96.0 96.0 96.0 0.96

0.96

0.96 96.0

0.96 0.96 0.96 98.7 96.7

0.96

0.96

0.96

7.46

7.96 0.96

95.0

90.7

86.7 86.7

49.3 6.65

88

AI AI

85.7

6.65

96.1 98.7

96.7 96.1

4.76

94.7 94.7

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7.86 0.86

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6.65

88

AI AI

0.96

95.3

96.0 96.0

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91.3

86.7

6.65 6.65

88

66.3

89.3 89.3

86.7

6.64

80

AI AI

0.96 0.96

0.96 0.96

4.7

7.46

92.0 94.0 94.7

94.7 7.46

1.96

1.76

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92.0

1.06 7.06

95.3

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1.46

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95.0 94.0

89.3 89.3 89.3 89.3

49.3 6.64

88

86.7

0.96 98.7 1.96

96.1

99.3 99.3 99.3100.0100.0100.0 66.3 86.3 66.3 86.3

66.3

99.3 99.3

98.7 99.3

0.96

0.96

95.3

99.3

99.3

7.86

0.96

0.96

95.3

7.46

86.66

198

TOTAL NUMBER OF OBSERVATIONS

150

SMOS DIRNAVOCEANMET

14793 STATION

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

APR

22

CEILING							VISI	BILITY (STA	VISIBILITY (STATUTE MILES)	(5)						
(FEET)	2	4 Al	\$ 41	4	E 41	2 2%	~ ~	VI - 27	¥1 VI	- AI	N Al	*	N Z	≥ 5/16	AI IA	0 11
NO CEILING	49.3	1	57.	57.3	57.3		7.	51.3	1.	57.3	51.3	57.3	-	57.3	1	57.3
> 20000	54.7			0.49	64.0	0.49	0.49	0.49	*	0.49		0.99	0.49	0.49	0.49	0.49
7 18000	54.7	-		0.49	0.49	0.49	0.49	0.49	4	0.49	0.49	0.49	3	0.49	0.49	0.49
1600	54.7	63.3	0.49	0.49	64.0	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.40	0.49	0.49
> 14000	54.7	63.3			1.49		64.7		4			1.40	4			64.7
> 12000	56.7	2.99	68,0	0.89	68.0	68.0	68.0	0.89	68.0	68.0	68.0	68.0		68.0	68.0	68.0
1		10.	72.0	72.0			72.0	12.0	72.0	72.0	7	7		0.27	72.0	72.0
0006	59.3	70.	72.0	72.0	72.0	72.0	72.0	72.0	72.0		72.0	72.0	5	•	72.0	72.0
	63.3	76.	17.3	77.3	77.3		77.3	11.3	17.3			17.3		17.3		77.3
7000	63.3	76.0	77.3	77.3	77.3	77.3	77.3		-	77.3		77.3	77.3	77.3	77.3	77.3
1	64.7	78.0	80.0	80.0	60.0	80.0	0	80.0		0	80.0	60.0		0	80.0	80.0
2006	65.3	79.	81.3	81.3	81.3	81.3	81.3	81.3		81.3		81.3	-	81.3	81.3	81.3
	65.3	61	81.3	81.3	82.0	62.0	82.0	82.0		2	82.	82.0	82.0	N	82.0	82.0
000	65.3	80.	83.3	83.3	84.0	0.48	84.0	84.0	84.0			84.0	84.0	84.0	84.0	84.0
	66.7	81.3	84.7	84.7	85.3	85.3		85.3	85.3	5		85.3	85.3	85.3	85.3	85.3
3000	67.3	83.3	86.7	86.7	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3		87.3	87.3	87.3
1	68.7	84.7	88.0	88.0	88.7		89.3	-	89.3	89.3		89.3	6	89.3	89.3	89.3
7 200	68.7	85.3	89.3	89.3	0.06	1.06	1.06	1.06	1.06	40.1	1.06	4006	40.1	1006	1.06	90.7
1	68.7	1	89.3	89.3		1.06	1.06	1.06	40.7	1.06		1.06			1.06	40.1
2 1500	69.3	86.	91.3	91.3	2		92.7	92.7	92.7	92.7		7.26	92.7	92.7	92.7	92.7
	69.3			91.3	95.0	92.1		3	93.3	*		63.3		93.3	63.3	93.3
1000			61.3	91.3	N	63.3	0.56		4	;	1.46	4.1	1. 46	4.1	4.1	94.7
	69.3		91.3	-	95.0	93.3		4	0.46		1.46	1.96		24.7	1006	7.46
008 AI		-	91.3	91.3		93.3	0.46	0.46	3	;	1.46	4.7		24.7	7.46	94.7
	69.3		61.3	95.0	1.26		64.7		3	*	62.3	93.3		3		65.3
8			61.3	95.0	92.7	24.7	95.3	. 3	6.3	95.3	0.96	0.96	0.96	96.0	0.96	0.96
	69.3	-	61.3	92.7	63.3	6.56	1.96	1	9		61.3	81.3	•			97.3
2 400	66.3		91.3	92.7	63.3	85.3	61.3	61.3	97.3	97.3		98.0	8	98.0	0.86	98.0
1 300	69.3		61.3	92.7	93.3		97.3	61.3	97.3	97.3	0.86	98.0	0	48.7	18.7	98.7
1 200	69.3	_	61.3	92.7	63.3	75.3	97.3	97.3	97.3	97.3	0.86	1.86	1.96	83.3	99.3	99.3
8	69.3	86.7	91.3	92.7	63.3	45.3	97.3	6.16	97.3	97.3	0.86	786.7	78.7	666	99.3	99.3
	03.3	20.1	41.3	15.1	93.3	73.3	77.3	6.16	21.3	97.3	0.96	1.04	100	86.66	99.33	000

TOTAL NUMBER OF OBSERVATIONS

150

5000

SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

14793

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WILLOW GROVE, PENNSYLVANIA

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL APR

CEILING							VIS	VISIBILITY (STATUTE	ATUTE MILES)	â						
(FEET)	2	۰ ۸۱	8 41	AI AI	6 41	> 2%	7 7	V 1%	71 71	Ā	% AI	*	AI N	≥ 5/16	N AI	٨١
NO CEILING	40.6	50.3	56.9	51.9	52.1	57.7	52.1	52.2	52.2	52.2	52.2	57.8	57.8	52.2	57.8	52.
		-	56.9		-	57.7	1:	-								-
14000	40.0	~	6.95	7.	57.7		57.7	57.8						-		57.
		6	57.6	8	8		. 8									
1 1 2000	41.9	5	2065		88.6	0	29.9	:		0	:	-				00
1 -		2	63.1				3	0.49		4		•				
000	4.44	-	63.8	64.3	;		*	64.7	:		:	:				64.8
	1.95	*	67.7			68.6	•			8						.89
141	46.3	0	68.3		6		6									69
	47.8	0	11.3				2.	2		2.				2.		72.
200		0	72.8	73.5	;		*	:								74.
		0	14.5	3.			3	0		9				0		76.
900			77.6	78.3		19.0		1.64	79.5							79.
		9	9.61	0	-		-	-								82.0
300		.3	83.0	3.	;		:			5				3		85.
		-	84.3	3.			.0									87.
7000		0	85.9	86.9						6	•		•			89.
1		-:	36.1	9	8		6							6		89.
141		0	87.3	88.2			0	0		ò				0		90.
		2.	1.18	8	6		0	:						-		91.
1 10	56.3	-	88.8	9.68	91.1	92.0	95.6	95.8		3					93.3	93.
		-	88.8	0		92.3	2.	-						*		93.
8		2.	89.5	2.06	:	92.8		3		;						. 76
		.3	89.3	6.06			3.			;						. 76
38		*	4.68	90.5	3		3	3				95.7		2		95.
		4	89.6	6.06	2.		5	5		6						96
141			89.7	91.1	93.1	94.6	95.8	3.96	96.3			97.3			97.3	97.
		9.	89.8	91.3	3							2.86				.86
28	50.5	•	89.8		93.4			97.1	61.3		98.6		1.66	6		99.
8		0	89.8	91.3	93.4	95.2	96.0	97.1	97.3	61.6	98.0	98.8	1.66	266	7.66	66
		•		•												

TOTAL NUMBER OF OBSERVATIONS

1200

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MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

10 MAK

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING								TISIONE (SINIONE MILES)	-	•						
(FEET)	0 1	AI	2 4	7,1	21	2 2%	~	VI 75	¥1 VI	Ā	AI AI	*	2 11	2 5/16	AI N	A1
NO CEILING	:	45.2		0		-	-	51.6		2.	1.	525.3		52.3	52.3	52.
> 20000	0	52.3		57.4	58.1	58.1	Œ	6	6		0.09			0.09	60.7	.09
	0	52.9		58.1			0	0	0	0	1.09	0			:	61.
14000	40.7	52.9		58.1	58.7	58.7	\$9.4			40.7	60.7	0	60.7	1.09	61.3	61.
		52.9		58.1	8	58.7	0		0	0		0			-	61.
170	-	53.6		53.7	\$6.4	6	0.09				:	61.3	61.3		-	61.
		56.1		61.0	3		63.9			3			65.2		-	
8	3.	56.8	61.3	62.6	63.8	63.6	64.5	65.2	65.2	65.8	65.8	2	65.8	65.8	66.5	99
1	3	60.7		66.3	-		68.4			6	1.69		69.7		70.3	
200		61.3		67.1	4.89	68.4	0.69		2.69		70.3	0	70.3		71.0	71.
1	1	62.6			3.	6	10.3		11.0	-	11.6		11.6		72.3	72.
2000	6			72.3	3	5	74.8		75.5		76.1		7601		76.8	76.8
1	-				5	9	76.8		77.4	80	1.07		78.1		78.7	78.
141	-		•		9		77.4		78.1	00	78.7		78.7		79.4	79.
	-				9		78.1		78.7	6	19.4		19.4		80.0	30.
300	2	71.6		78.1		0	81.3	81.9	81.9	2.	82.6	82.6	82.6	82.6	83.2	83.
1	2.	71.6			0	0	81.3	-	61.9		82.0		82.6		83.2	83.
300		73.6			2.	83.2	84.5	85.2	85.2	85.8	85.8		85.8		86.5	86.
1	2.	73.6			2.	3	84.5	5	85.2	85.8	85.8		85.8		80.5	86.
3 8		73.6			83.2	83.9	85.2		86.5		87.1				87.7	87.
1	2				3.		85.8	87.1	87.1		87.7				88.4	88
88	2			81.9	5	85.8	87.1	88.4	88.4			89.0	89.0	89.0		89
1	2					-	CO	89.7	1.68					90.3		
141		74.2		83.2	87.1	87.7	89.7	0.16	91.0	91.6	91.6	91.6	91.6		2	92.
1	7			3.		-	0	:	91.6			2		92.3		92.
8	2	74.2		83.2	87.1	87.7	-	92.3	92.3					•		93.
	2.			3.		0	(4)		8.96					1.96		96
141		74.2		83.9	38.4	89.0	643	94.8	8.46	95.5			1.96	96.1		96
	2			100		6	34.5		1.96		8.90		4.16		1.86	98.
8	52.3		81.9	3.	8		84.5		90.8	7.	1.		1.86			96
8		14.2		63.9	88.4	1 68	2046	2.96	8.96	41.4	4.16	31.6	1.86	98.1	1.86	.86
	-	7		*	a		4	4			r	7	a		1	2

TOTAL NUMBER OF OBSERVATIONS

155

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MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

14793

WILLOW GROVE, PENNSYLVANIA

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

16485

40 ZAX -

March Marc	CEILING							VISIA	BILITY (ST.	VISIBILITY (STATUTE MILES)	(\$)						
20.00 32.9 45.8 48.4 49.0 51.6 52.9 53.6 54.8 56.1 56.1 56.1 56.1 56.1 56.1 56.1 56.1	(FEE)			8 41	71		1				- AI						O AI
22.9 45.8 46.8 46.4 49.0 51.0 52.7 53.0 54.2 55.5 56.8 56.1 56.1 56.1 56.1 56.1 56.1 56.1 56.1	NO CEILING	(4)	and the same of	2			00	6			-	·			-		51.6
32.9 45.8 45.8 45.4 49.0 51.0 52.7 53.0 54.2 55.5 55.8 55.1 56.1 56.1 56.1 56.1 56.1 56.1 56.1			-	4.8		-	2.				9	•	-			•	20.1
10000 36.2 47.7 96.4 49.7 52.3 52.0 54.2 55.5 56.8 56.8 56.8 56.8 56.8 56.8 56.8			****	4.8		-		3.	•	•	9						20.1
36.2 4 5 8 4 6 6 4 47 7 72.3 22.0 54.2 55.5 55.6 55.6 56.7 56.7 56.7 56.7 56.7			-	4		3	23.0	*	2	•	•	•			•		26.8
34.2 47.7 50.3 51.6 54.2 55.5 56.1 57.4 57.4 58.7 58.7 58.7 58.7 58.7 58.7 58.7 58.7			-	200	1.64		53.0	*	\$5.5		9						20.8
35.1 52.3 54.8 56.8 59.4 60.7 61.9 61.9 63.2 64.5 64.5 64.5 64.5 64.5 64.5 64.5 64.5		\sim	-	50	-	*	5	•	57.4	-	60						58.7
38. 38.1 52.3 54.8 56.8 59.4 60.7 61.9 63.2 64.5 64.5 64.5 64.5 64.5 64.5 64.5 64.5	1		1-	5	5	58.1	6	0	1	1			4.4	63.			63.2
3900 39.4 55.5 58.1 60.0 63.2 64.3 65.8 67.1 67.1 69.0 69.0 69.0 69.0 69.0 69.0 69.0 69.0		38.1		54		6		-		3	*		64.5	. 49			64.5
7000 40.0 56.1 58.7 60.7 63.9 05.2 66.5 67.7 67.7 69.7 69.7 69.7 69.7 69.7 69.7	1	39.4	1	58	C	3.		5		-	6		0.69	69			69.0
45.2 60.7 56.8 59.4 61.3 64.5 65.4 69.7 71.0 72.3 74.2 74.2 74.2 74.2 74.2 74.2 74.2 74.2		40.0	10000	30	0					7			69.7	. 69			69.7
43.2 60.7 63.2 65.2 68.4 69.7 71.0 72.3 72.3 74.2 74.2 74.2 74.2 74.2 74.2 74.2 74.2	1	40.0	1	5	-			:			0		10.3	10			70.3
44.5 63.2 65.8 68.4 71.6 72.9 74.2 75.5 77.4 77.4 77.4 77.4 77.4 77.4 77.4		43.2		63	41	00		:		2	;		74.2	74.			74.2
44.5 63.2 65.8 68.4 71.6 72.9 74.2 75.5 77.4 77.4 77.4 77.4 77.4 77.4 77.4		43.9		9	10	-				3.	5		75.5	75.			75.5
3500 44.3 63.2 65.8 69.0 72.3 73.6 74.8 76.1 78.1 78.1 78.1 78.1 78.1 78.1 78.1 78		44.5		65	0	-				3	-		77.4	77.			77.4
3500 45.2 63.9 66.5 71.0 74.2 75.5 76.8 78.7 78.7 80.7 80.7 80.7 80.7 80.7 80		44.3		65	0						X		1.81	78.			78.1
46.5 65.2 67.7 72.3 75.5 76.8 78.7 60.7 62.6 62.6 62.6 62.6 62.6 62.6 62.6 62		45.2	-	9		;					0		80.7	80.			80.7
47.1 67.1 69.7 74.2 78.1 79.4 81.3 83.2 83.2 85.2 85.2 85.2 85.2 85.2 85.2 85.2 85		46.5		0	2			80			2.		82.6	.78			82.6
1300 47.1 67.1 69.7 74.2 76.1 79.4 61.3 83.2 83.2 85.2 85.2 85.2 85.2 85.2 85.2 85.2 85		47.1		69	4			:			5		85.2	85.			
47.1 67.1 70.3 74.8 78.7 80.0 81.9 83.9 83.9 85.8 85.8 85.8 85.8 85.9 85.8 86.5 86.5 86.5 86.5 86.5 86.5 86.5 86.5 86.5 87.1 87.1 89.0 <td< td=""><td></td><td>47.1</td><td>-</td><td>69</td><td>*</td><td></td><td></td><td>:</td><td></td><td>3</td><td>5</td><td></td><td>2.58</td><td>85.</td><td>3.</td><td></td><td></td></td<>		47.1	-	69	*			:		3	5		2.58	85.	3.		
48.4 69.0 72.9 78.1 81.9 83.2 85.2 87.1 87.1 89.0 89.0 89.0 89.0 89.0 89.0 89.0 89.0		47.1	67.1	5	*			:		3	3		85.8		3		
48.4 69.0 72.9 78.1 81.9 83.2 85.2 87.1 87.1 89.0 89.0 89.0 89.0 89.0 89.0 89.0 89.0		47.7	67.7	F	15.5			3	3		9	86.5	66.5				
46.4 69.0 72.9 78.1 81.9 83.2 85.2 87.1 87.1 89.0 89.0 89.0 89.0 89.0 89.0 89.0 89.0		48.4	-	72.	78.1	:		10	-		6	89.0	0				89.0
48.4 69.0 73.6 78.7 83.2 84.5 88.4 88.4 90.3 90.3 90.3 90.3 90.3 90.3 90.3 90.3		4.84	-	12.	18.1	-			1:		6	0.68	6				
48.4 69.0 73.6 78.7 83.2 84.5 88.4 91.0 91.0 91.0 91.0 91.0 91.0 91.0 91.0		48.4	-	73.	78.7	2.		10	-	-	6	89.7	0		89.7	89.7	89.7
48.4 69.0 73.6 78.7 83.2 84.5 86.5 88.4 91.0 91.0 91.0 91.0 91.0 91.0 91.0 91.0		46.4	-	73.	100	3.	3		8		0		0		0	90.3	90.3
46.4 69.0 73.6 78.7 83.2 85.8 88.4 91.0 91.6 94.2 94.2 94.2 94.2 94.8 94.8 3.0 48.4 69.0 73.6 73.6 78.7 83.9 86.5 89.0 91.6 91.6 94.2 94.2 94.2 94.8 94.8 94.8 94.8 300 48.4 69.0 73.6 78.7 83.9 86.5 90.3 93.6 93.6 96.1 96.1 96.1 96.8 96.8 97.4 100 48.4 69.0 73.6 78.7 83.9 86.5 90.3 93.6 93.6 96.1 96.1 96.1 96.8 96.8 97.4 100 48.4 69.0 73.6 78.7 83.9 86.5 90.3 93.6 93.6 96.1 96.1 96.1 96.1 97.4 98.1 98.71		48.4		73.	00	3	*	0		80	-		:		-		91.0
48.4 69.0 73.6 78.7 83.9 86.5 89.0 91.6 91.6 94.2 94.2 94.2 94.8 94.8 94.8 94.8 94.8 94.8 94.8 94.8		48.4	-	13.		3.	3	. 8	-	:	3.		3		;		34.2
200 48.4 69.0 73.6 78.7 83.9 86.5 90.3 93.6 96.1 96.1 96.1 96.8 96.8 96.8 96.8 200 48.4 69.0 73.6 78.7 83.9 86.5 90.3 93.6 93.6 96.1 96.1 96.1 96.8 96.8 97.4 100 48.4 69.0 73.6 78.7 83.9 86.5 90.3 93.6 93.6 96.1 96.1 96.1 96.8 96.8 97.4 98.4 69.0 73.6 78.7 83.9 86.5 90.3 93.6 93.6 96.1 96.1 96.1 97.4 98.1 98.71		48.4	-	73.		3	0	0	-		;						94.8
200 48.4 69.0 73.6 78.7 83.9 86.5 90.3 93.6 96.1 96.1 96.1 96.8 96.8 97.4 100 48.4 69.0 73.6 78.7 83.9 86.5 90.3 93.6 93.6 96.1 96.1 96.1 96.8 96.8 97.4 98.4 69.0 73.6 78.7 83.9 86.5 90.3 93.6 93.6 96.1 96.1 96.1 97.4 98.1 98.71	1	48.4	-	3.	13.1	3.	0		3.			1.96	1.96				96.8
0 48.4 69.0 73.6 78.7 83.9 86.5 90.3 93.6 93.6 96.1 96.1 96.1 96.8 97.4 98.1 98.7		48.4	-	73.		m	0	0		93.6	9		1.96		•	97.4	97.4
0 48.4 69.0 73.6 78.7 33.9 86.5 90.3 93.6 93.6 96.1 96.1 96.1 97.4 98.1 98.7	-	4.8.4	0.69			1	.0		3.	•	0			0	0	•	1.86
		48.4	0.69			2	.0		3	•	9			-	200		10000

0

Q

Q

Q

0

0

155

TOTAL NUMBER OF OBSERVATIONS

DIRNAVOCEANMET SMOS

0

0

0

CEILING VERSUS VISIBILITY

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

14793

WILLOW GROVE, PENNSYLVANIA

(FROM HOURLY OBSERVATIONS)

PERCENTAGE FREQUENCY OF OCCURRENCE

MAN 0

HOURS (L S.T.

CEILING							VISI	BILITY (ST.	VISIBILITY (STATUTE MILES)	S						
(ME)	0 1	» Al	8	7	21	Y 2%	7	V 1%	¥1 ¥2	- -	N N	*	Z Al	2 5/16	M M	O AI
NO CEILING	29.0	43.9	45.B	46.5	51.0	9116	52.3	52.3	52.3	52.3		.2		52.3	52.3	52.3
≥ 20000	29.7	46.5	49.0	49.7	55.5	56.1	56.8	•	\$6.8	36.8		56.8	56.8			56.8
V 18000	29.7	46.5	49.0	1.64	55.5	1.95			90.95	56.8	•	8.95		56.8		80.95
2 16000	29.7	46.5	0.65	1.6	55.5	56.1	36.8		56.8	•		56.8	;	56.8	86.8	56.8
	1.67	46.5	49.0	49.7	55.5	1.95		80.8	80.9		90.8	26.8		56.8		20.8
> 12000	30.3	47.1	49.7	50.3	56.1	·	\$7.4	57.4	57.4		57.4		-	57.4		57.4
	30.3	51.0		54.8	3.	2.89			3	63.9	•		3	3	3	63.9
0006	30.3	51.6	24.5	56.1	63.8	64.5	5.59	2.59	65.2		65.2	65.5	65.2	65.2	65.2	65.2
1	31.0	56.1	29.4	61.3		60	0	0		71.0	0.17	-			:	71.0
7000	31.0	56.8	90.0	61.9	1.69	70.3	71.0	•	71.0	71.6	71.6	71.6		71.6	71.6	71.6
1	31.0	58.1	6119		•	2.	3	3.					14.2	•	74.2	74.2
9000	31.0	58.1	65.6	65.2			74.2		74.2	3			•	•	75.5	75.5
	31.0	58.1	9.79	65.2	72.9		;	76.2	74.2		75.5	15.5	2	75.5	75.5	75.5
000	32.3	60.7	2.59	67.7	16.1		77.4				00		8		78.7	78.7
	32.9	61.3	66.5		11.4				8	0	•		0	0	80.0	80.0
3000	32.9	61.3	66.5		77.4	18.1	78.7	80.0	80.0	81.3	:	81.3	:	81.3	81.3	81.3
1	32.9	6119	67.1	69.7	78.1	8			0		:	81.9	81.9		81.9	81.9
7 2000	32.9	61.9	2.19	70.3	78.7			81.9	81.9				3	83.2	83.2	83.2
1	32.9	61.9	1.19	10.3			80.7	:	6.18	83.2		-	3	83.2	83.2	83.2
1500	32.9	63.2	0.69		80.7	.;	82.6	83.9		85.2	85.2	85.5	2	85.2	85.2	85.2
	32.9	63.2	0.69	0.11	61.3	61.9		2	5	86.5	86.5	0	•	86.5	86.5	86.5
98	35.9	63.2	0.69	72.3	81.9	83,2						87.7	1.	87.7	87.7	87.7
	32.9	63.2	0.69	•	•	•				:		87.7		87.7	•	87.7
88	32.9	63.5	0.69	72.9	82.6	83.9	•	87.1	87.1		6		6	89.0	6	89.0
	32.9	63.2	0.69		82.6	63.9	85.8	87.1			•	89.0		89.0	89.0	89.0
8	33.6	64.5	70.3	74.2	83.9	83.5			88.4		0	6.06	0		90.3	90.3
	33.6	54.5	10.3		83.9	2.50	4.8	0	600	92.3	•		2.	92.3	92.3	92.3
8	33.6	64.3	70.3	74.2	83.9	85.2		8.06	80.3		95.3	85.3			65.3	92.3
88	33.6	64.5	10.3	74.2	0.	200	-	-	-			94.8	94.8	94.8	8.46	94.8
	33.0	04.5	0.3	74.5	64.5	02.0	75.	6.36	72.3		100	1001	-	•	:	4016
80	33.6	64.5	20.0	74.2	44.0	200	200.1	65.0	6.26	96.96	98.7	98.7	000	000	0000	000
1	2000			4				:	3	0	•		3	5	5	3

TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

73-

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

10

10 HOURS (1.5.7.)

Part	CEILING							VIS	VISIBILITY (STATUTE MILES)	ATUTE MIL	(53						
20000 34.8 51.0 53.0 54.2 55.5 55.5 56.8 50.8 50.8 50.8 50.8 50.8 50.8 50.8 50	(FEET)	2		2.5	AI						- AI	1			≥ 5/16	N N	O AI
34.8 51.0 53.0 54.2 55.5 55.5 56.8 56.8 56.8 56.8 56.8 56.8	NO CEILING	0	0			0.67	6		49.7	4.6.4	6	6	6		49.7	49.7	49.
34.8 51.0 53.6 54.2 55.5 55.5 56.8 56.8 56.8 56.8 56.8 56.8	> 20000	;	-	53.	;	3		.9	0		.0		9			56.8	56.8
10000 34.8 51.0 53.0 54.2 55.5 55.5 56.8 56.8 56.8 56.8 56.8 56.8			-	53.				0		0	0	0	9		0	56.8	56.8
34.8 51.0 53.0 54.2 54.8 56.1 56.1 57.4 57.4 57.4 57.4 57.4 57.4 57.4 57.4			-	53				.9			9		.0		9	56.8	56.8
35.5 51.6 54.2 54.8 56.1 56.1 57.4 57.4 57.4 57.4 57.4 57.4 57.4 57.4			-	53.		3		9		0		0	9				56.8
10000 36.1 54.2 57.4 58.1 59.4 59.4 60.7			-	54.				-	57.4	-		2				57.4	57.4
31.6 56.2 57.4 58.1 59.4 59.4 60.7 60.7 60.7 60.7 60.7 60.7 60.7 60.7	1			57.	58.1	2			60.7		0						60.7
37.4 56.8 60.0 60.7 61.9 61.9 63.2 63.2 63.2 63.2 63.2 63.2 63.2 63.2				57.	58.1	0			60.7		0					60.7	60.7
7.00 37.4 56.8 60.0 60.7 61.9 61.9 63.2 63.2 63.2 63.2 63.2 63.2 63.2 63.2	1			09	0	-	-				3			63.2	63.		63.2
37.4 57.4 51.3 61.9 63.2 65.2 66.5 66.5 66.5 66.5 66.5 66.5 66				09	C	-	-							63.2	63.	3	
37.4 58.7 52.6 63.2 65.2 65.2 66.5 66.5 66.5 66.5 66.5 66	1			.10	-	3	3				4.			64.5	64.	:	64.3
39.4 63.9 67.7 64.5 67.1 67.1 68.4 68.4 68.4 68.4 68.4 68.4 68.4 68.4				62.	14	65.2	5				.0			66.5	66	•	
3000 \$40.0 04.5 58.4 69.0 71.0 71.0 72.3 72.3 72.3 72.3 72.3 72.3 72.3 72.3	1			90	3	1.19	1:				8			68.4	68.		
1300 40.0 64.5 58.4 69.0 71.0 71.0 72.3 72.3 72.3 72.3 72.3 72.3 72.3 72.3				67.	8	70.3	0				-			71.6	-	71.6	71.6
300 42.6 69.7 74.8 76.1 78.1 78.1 80.0 80.0 80.0 80.0 80.0 80.0 80.0 8				58.	0	1:0								72.3	12.	2	72.3
43.9 72.9 78.1 77.4 81.9 81.9 83.9 83.9 83.9 83.9 83.9 83.9 83.9 83				74.	76.1	78.1					0			80.0	80.	•	80.0
2000 43.9 72.9 78.1 79.4 81.9 81.9 83.9 83.9 83.9 83.9 83.9 83.9 83.9 83				9		19.4	6				-			81.3	81.	:	81.3
1200 43.9 72.9 78.1 79.4 81.9 81.9 83.9 83.9 83.9 83.9 83.9 83.9 83.9 83			12.9	78.		81.9								83.9	83.		83.9
1300			72.9	18.		81.9					3			83.9			83.9
1200 43.9 74.2 79.4 81.3 83.9 84.5 86.5 86.5 86.5 86.5 86.5 86.5 86.9 86.9 86.9 86.9 86.9 86.9 86.9 86.9			73.6	78	ċ	2	3				3		85.2	85.2		85.2	85.2
43.9 76.1 81.9 83.9 87.1 87.7 90.3 <th< td=""><td></td><td></td><td>14.2</td><td>.61</td><td>-4</td><td>3</td><td>*</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>86.</td><td></td><td>86.5</td></th<>			14.2	.61	-4	3	*								86.		86.5
************************************			76.1	81	-		-								90.		90.3
43.9 76.1 81.9 83.9 87.1 88.4 91.0 91.0 91.0 91.0 91.0 91.0 91.0 91.0			16.1	•		-					0				90.		90.3
700 43.9 76.1 81.9 83.9 87.1 88.4 91.0 91.0 91.0 91.0 91.0 91.0 91.0 91.0			76.1	•	10	-	8				-				91.		91.0
43.9 76.1 81.9 83.9 87.1 88.4 91.0 91.0 91.6 91.6 91.6 91.6 91.6 91.6 91.6 91.6	1		16.1			-					-	:			91.		91.6
200 43.9 76.1 83.2 85.8 89.7 91.6 96.1 96.1 96.1 96.8 96.8 96.8 96. 200 43.9 76.1 83.2 85.8 89.7 91.6 96.1 96.1 96.1 96.8 96.8 96.8 96.8 96.1 96.1 96.1 96.1 96.8 96.8 96.8 96.1 96.1 96.1 96.1 96.8 96.8 96.8 96.1 96.1 96.1 96.8 97.4 97.4 97.4 97.4 97.4 97.4 97.8 97.8 97.8 97.8 97.8 97.8 97.8 97.8			76.1	•	645	87.1	00				=		-		91.		92.3
43.9 76.1 83.2 85.8 89.7 91.6 96.1 96.1 96.1 96.8 96.8 96.8 96.8 96. 300 43.9 76.1 83.2 85.8 89.7 91.6 96.1 96.1 96.1 96.8 96.8 96.8 96. 300 43.9 76.1 83.2 85.8 89.7 91.6 96.1 96.1 96.1 96.8 97.4 97.4 97.0 0 43.9 76.1 83.2 85.8 89.7 91.6 96.1 96.1 96.1 96.8 98.7 98.7 98.7 98.9 75.1 83.2 85.8 89.7 91.6 96.1 96.1 96.1 96.8 98.7 98.7 98.7 98.			76.1		85.8	0					*				94.		94.8
200 43.9 76.1 83.2 85.8 89.7 91.6 96.1 96.1 96.1 96.8 96.8 96.8 96.8 96.8 96.8 96.8 96.8			76.1		85.8		•		96.1		;				96.	96.8	97.4
200 43.9 76.1 83.2 85.8 89.7 91.0 96.1 90.1 90.1 96.8 97.4 97.4 100 43.9 76.1 83.2 85.8 89.7 91.6 96.1 96.1 96.1 96.8 98.7 98.7 98.7 96.1 96.1 96.1 96.8 98.7 98.7			76.1	•	-	0	•		1.96		9				96		97.4
100 43.9 76.1 83.2 85.8 89.7 91.6 96.1 96.1 96.8 98.7 98.7 9 0 43.9 76.1 96.8 98.7 98.7 9			16.1	•			•		1006		0			41.4	77.4		
0 43.9 76.1 33.2 85.8 39.1 91.0 96.1 96.1 96.8 98.1 98.7	-			•			•	1.96	96.1	9	0			98.7	98.7	4.66	0.001
The state of the s					83.8		•	1.96	1006					98.1	78.7	44.4	

TOTAL NUMBER OF OBSERVATIONS

155

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

13 MAY

3

CELLING 22.6 5 10 2 10 2 10 2 10 2 10 2 10 2 10 10000 27.1 1 10000 29.7 1 1 10000 29.7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7 4 4 9 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		2 4	N1 Y	77	-	* 1	*	ν γ	≥ 5/16	7	
	24407 N 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6	122220022200	2000	-	28 7	ļ		1		-			0
	44444444444444444444444444444444444444	44444600000000000000000000000000000000	200000000000000000000000000000000000000	300	38.7	200	•		8	38.7		38.7	38.7	
18000 27-1 14000 27-1 12000 27-1 10000 27-7 10000	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	00000000000000000000000000000000000000	•	45.8	45.8	•		45.8	45.8	45.8	45.8	45.8	45.8
16000 27°1 10000 27°1 10000 27°7 10000 29°7 10000 29°7 1000 40°7 1000 40°7	405040404040404040404040404040404040404	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	000000000		5	45.6	45.8	45.8	2	•	2	•	2	45.8
13000 27.7 9000 29.7 9000 99.7 9000 99.7	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	**************************************	# w 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5.8	45.8	45.8	•		45.8	45.8		45.8	45.8	45.8
10000 2000 2000 29.7 6000 29.7 6000 29.7 6000 29.7 6000 29.7 6000 29.7 6000 29.7 6000	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	000000	9		40.5	0	46.5	40.5		0	46.5		40.5
3000 29.7 3000 29.7 40.7 4	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0000000	7.1	47.1			•	1.		47.1		47.1	47.1
29.7 29.7 2000 29.7 2000 29.7 2000 29.7 29.7 29.0 34.2 30.0 34.2 30.0 34.2 30.0 34.2 30.0 34.2 30.0 34.2 30.0 34.2 30.0 40.7 30.0 40.7	7 6 6 9 9 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0 2 2 2 2 0	-	9.16			•	:	21.6		-	:	51.6
29.7 5000 29.7 5000 29.7 5000 29.7 5000 29.7 5000 34.2 350 36.8 350 36.7 350 36.7 350 40.7 350 4	200000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 2 2 0 0	-	51.6	51.6	:	51.6	:	-	-	-	-	51.6
29.7 5000 5000 29.7 5000 29.7 5000 29.7 5000 29.7 5000 5000 5000 5000 5000 5000 5000 5000 5000 60.7	7 6 8 3 6 4 6 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	56.1 25.0	2000	8.4	54.8			*	:				54.8	-
29.000 29.7 7 9.000 34.2 2 9.7 3500 34.2 2 9.7 3500 34.2 2 9.7 3500 34.2 2 9.7 3500 34.2 2 9.7 3500 4.0 7 7 9.0 7 9.0	7 6 8 8 4 6 4 8 4 6 8 4 6 8 4 6 8 4 6 8 4 6 8 6 8	56.1 59.1 65.2	0.00	4.8	;	54.8	*		54.8	;	*	4	;	54.8
29.7 4500 4500 31.6 3300 34.2 3500 36.8	3 54 5 5 3 7 7 2 8	59.1	8.0	1.9	9	56.1	0	9			0	0	56.1	
2500 34 - 2 2500 34 - 2 2500 36 - 7 2500 4 - 2 2500 4 - 2 250	6 58 9 68 7 72	59.4	0.0	7.4	57.4	57.4	57.4	57.4	7	57.4	37.4	57.4	57.4	57.4
3500 34 • 2 3500 3500 36 • 8 3500 36 • 7 2500 4 • 6 • 7 1500 4 • 6 • 7 1000 6 • 6 • 7 1000 6 • 6 • 7 1000 6 • 6 • 7 1000 7 • 7 10	.4 63 .7 72.	65.		0	0	1009	0	0	0	60.7	0	60.7	0	60.7
3500 3600 3600 2300 2300 400 400 400 400 400 400 400	.9 68.		20	6.5	67.1	67.1		67.1		67.1	1	-	67.1	67.1
3000 2300 2300 1300 4 C C 7 1300 4 C C 7 1000 4 C C 7 1000 100	.7 72.	0			-	41.6		-		=	:	-		71.6
2300 2000 1300 1300 1000 1000 1000 1000		-	;	5.5	76.1	76.1		9		76.1		76.1		76.1
2000 1300 1300 1300 1300 1300 1300 1300	.0 75.	-	8.1	6	0	80.0		•		80.0	6	0		80.0
1300 1300 1300 1300 1300 1300 1300 1300	.8 81	0	.2		86.5	86.5	86.5	•	86.5			0	86.5	86.5
1300 1000 1000 1000 1000 1000 1000 1000	.8 81.	84.5	8 8.58	9	-	87.1				-		87.1		87.1
200 200 200 200 200 200 200 200 200 200	.8 83.	87.1	4.8	6		8.06		ò	•	8006	0	0		90.3
000 000 000 000 000 000 000 000 000 00	. 8 34.	0.68		1.0	2.			2.		2	2.	92.9		92.9
000 000 000 000 000 000 000 000 000 00	.8 85.	89.7	1.6	2	34.5	3.46			•		*	4		94.2
800 800 4 4 6 6 6 7 6 7 7 7 8 8 8 8 8 8 8 8 8 8 8 8	68 85	69.1	1.6	2.	4	;		*		*	*	3	34.5	94.2
200 200 4 500 4 500 4 500 500 500 500 500 500	.8 85.		2.3	3.6	;					8.46	*	4		94.8
500 40°T	œ.	1.6	6.3	3.6		;	8.46	8.46			8. 56	8 . 76	8.46	94.8
500 40°7		1.6		4.2	:			•	95.5	95.5	2	3	62.2	95.5
	60		9.	3.5						8.96	9		•	
40.7	. 8		3.	5.5	4.16	98.1	98.1		1.86	1 . 86	98.1		1.86	98.1
300 40.7				6.0			6	7.66		4.66				7.66
200 40.7	8	89.7	.2	6.0	1.86	4.66	4.66	4.66	4.66	4.66	4.66	4.66	4.66	4.66
	80	89.1	6 7.76		1.86	7.66	7.66	9.06	4.66	4.66	3.66	19.66		0.00
1.04 0	. 8	89.7	•	6.9	7.86	4.66	4.66	4.66	4.66	36.66	4.66	99.41	00.00	00.00

TOTAL NUMBER OF OBSERVATIONS

155

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SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

91

MAN.

CEILING							VISI	BILITY (ST.	VISIBILITY (STATUTE MILES)	(5)						
(FEET)	2 1	o Al	\$ 1	1	2	> 2%	7	¥1 ¥	VI VI	-	× Al	*	Z AI	≥ 5/16	N AI	0 1
NO CEILING	23.2	32.9	35.5	37.4	38.1	47.7	38.1	38.1	38.1	38.1	38.1	1.86	198	38.1	38.1	38.1
V 18000	29.7			47.1		00		8		48.4				48	48.4	48.4
1 41	29.7		45.2	47.1	48.4	48.4	48.4	48.4	4.84	48.4	48.4	48.4	48.4	48.4	48.4	48.4
	1.67			41.1		5	6				0.65	0		.64	*	49.0
12000	31.0			:	52.3	52.3	52.3			52.3		52.3	2	2	52.3	52.3
1 -	31.0			53.0	24.8		*		24.8		24.0	3	;	24.8	*	54.8
000	31.0			53.6	34.8	*	54.8		•		54.8	54.8	;	5	54.8	54.8
1	32.3				8	20		56.7	58.7			00			•	58.7
141	32.9				29.4		29.4	\$9.4	59.4	6	:			59.	59.	59.4
1	32.9			0	61.3	-	-	-		-	•	-	:	91.	.10	61.3
888	33.6			62.6	63.6	63.9	63.6	63.6		63.9	63.9		3	•	63.	63.9
1	34.2			0						-				67.	61.	57.
1 1	36.8		67.7	71.6	72.9	73.6	73.6	73.6	73.6	73.6	73.6		73.6	73.	~	73.6
	36.1			4	0	9	9	0	9						76.	76.8
3000	40.0				81.9	82.6		82.6	82.6	2	3	2	2	82.	82.	
	40.0		76.1	80.7	83.2	3.	83.9	5	3			83.9		80		
2000	40.0		78.7	83.2	3.	9			•		;		;	0	;	86.5
1	40.0			84.5	-	1.	87.7	87.7	-	87.7	87.7	87.7	87.7	0	87.7	87.1
1 200	40.0			. 9	89.0		89.7				1.68	89.7	0	89.	00	89.7
1	40.0			87.1		0	•	0.16	91.0		0.12	91.0		91.	91.0	91.0
100	40.0			0.68	91.6	2.			93.6	ë		m	3	93.	0	
1	0.04			0.68	-	N	65.6	93.6		93.6		93.6	93.6		93.	93.6
8	40.0			91.0				•	•	9	•		•	96.	96.	96.8
	0.04		83.9	91.0			1.96		8.96	8.96	•	96.8	96.8		8.96	96.8
9	40.0			-			96.1			•	8.96			96.	96	96.8
	40.0			91.0	62.5	96.8	4.16		1.86	8	1.86	1 . 86	1.86	98.1	1.86	98.1
141	40.0			91.0		96.8	98.1	6		6		•-		66	66	99.4
30	40.0		83.9	91.0		4.16	98.7	0	100.00		0.001	0.001	0000	0000	001	100
	0.0	•		•	1006	10.4	78.	5	100.0		0.007		3	001	001	001
8	0.04		83.9	91.0		**	78.7	00.00	100.0	0000	0.001	0001	000	2	001	001
	40.0	•		71.0	1006		78.1	5	0000	0.001	1000	0001			0.001	000

TOTAL NUMBER OF OBSERVATIONS

135

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SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

19 HOURS (1.5.T.) X AV

220

	٨١	67.	-	52.	-	57.	.09		63.	64.	67.		72.		8.	84.	85.	89.	90		-		95.		94.	95.		66	00	00	000
	N AI	47.1	2.	•	3.	-	0	2.09	0	;	-	6	3	76.1		+	2		0	:	:		65.6	;	;	•		6			0000
	≥ 5/16	52.3	2.	55.9	53.6	-	60.7	60.7	•		67.7				8	*		89.7	0		91.6	2		4.		•		6	00.00	•	00.00
	AI Z	52.3	2	55.9	3.	7.	0		3	*			2		8	;	2	6	0	-	:	92.9	2		*	5		6	100.0	•	100.00
	*	410	52.	5	53.	57.		•09	63.	04.	67.	69	72.	-	78.	84.	85.	68	.06	91.	91.	0	92.	94.	. 96	95.5	97.	66	100	2	100.0
	AI	2 IC	52.	52.	53.	57.	.09	60.	63.	64.	-	69	72.	-	78.	84.	85.	89.	.06	91.	91.	95.9	92.	. 56	. 76	95.	97.	66	10	100	100
MILES)	- AI	1 47.1	52.	52.	53.	57.	•09		63.	04.	9	69	72.	~	78	84.	85.	89.	.06	91.	91.		92.	94.	76	95.	6	.66	0100.0	100	0.0010
(STATUTE M	VI 71		52.	5	53.	57.	-09	.09	3.	64.	67.	69	72.		78.	84.	85.	6	.06	91.	91.	92.	2	. 46	*	95.	97.	6	100	0100	0100.0
VISIBILITY (VI %	1 47.	52.	52.	53.	57.	60.	60	63.	. 49	9	69	72.		78.	84.	85.	89.	90.	91.	91.	•	95.	94.	. 76	95.	97.	66	0100	100.	0100
	AI AI	3 52.		2	5	4 57.	9		9	0	9	0			-	œ	æ		5	0	0	3 92.	6	o.	0					8100.	8100
	2 2%	1 47.		-	2	5	0	7 60.	0	0	0	0	-	1 76.	-	9 84.	2 85.	00	20	3	3 91.		6	0	. 76 9	6	8 98.	8 96.	96 6	5 96.	5 96.
	AI .	3 52.	80	0 52.	~	S	1 60.		9		0	7 69.		~	-	63 0	_	9 88.	-	2 89.	_	8 91.	6		5 93.		. 5 64.		2 95.		5 95.
	٨١	7 50	5	4 51.	2	8	~	5 58.		9	. 6 65	0	9	7 73.	-	80.	5 80	4 83.	00	7 85.	00	7 85.	8	4 86.	00	4 86.	œ	4 86.	4 86	4 86	4 86
	AI .		4		.5 4	. 1	.6 5	.6	6 8	5	9		6				0.			0.		0.		.0	0.		100		0		0 0
	AI 0	40	45								_		9	64	100	5 68	5 69	5 70	2		2	7.1	5 71	7.1		7.1		7.1	5 71	7.1	5 71
_	۷۱	+-	+	_	-		30	30	32	34	35	32	33	34	34	35	35	35	35	35	35	35	35	35	35	30	35	35	35	20	9.9
CEILING	(FEET)	NO CEILING	× 1800	14000		12000		000 AI		141	1	2000	1	1 1	1	38	1 -	141		1500		VI 000		% AI		8		141		% AI	80

0

155

TOTAL NUMBER OF OBSERVATIONS

0

0

0

0

DIRNAVOCEANMET SMOS

14793

HILLOW GROVE, PENNSYLVANIA

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

22 HOURS (1.5.7.) MAY

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING																
(FEET)	5 1	4 Al	51	AI AI	e Al	≥ 2%	2 7	VI 71	VI 71	-	% Al	* Al	N X	≥ 5/16	N NI	AI
NO CEILING	33.6	57.3	54.5	51.0	56.1	55.1	51.6	51.6	51.6	51.6	52.3	57.4	52.3	52.3	52.3	52.
1	25				9	0	1	6	9	6	-				-	
00091						0			9	•	57.4		57.4	57.4		57.
		2			9	0	-		1.	-					8	58.
12000	39.4	4			8		6			.6	0.09		0.09	60.0	0	60.
1		80			100	5.3	10			3	4					. 49
000	40.0	100	60.7	63.2		63.5				3.	64.5				;	64.
1					83	00	6			. 6	6					69
141		-	66.5		6	6	6			. 6	-				0	70.
1	44.6		60.5		6	6	6			6	-				0	10.
200	42.6	*			6	6	•									70.
1	43.2		4.89		-		2.			2.					7	
900	44.5	67.1	71.6			5	. 9			9	-		76.8			76.
	44.5				0	-	8			00	1 -				80	78.
3000	44.5	69.7			0		-			-	-				5	82.
			3.1		-	5	6				1 -				3	83.
500	45.8	71.6	•		3	0	-				-					88
1					3	9	-				1				6	
1500	46.5				. 9	-	6			6	-					
1	40.5	2			-	3	0			-	-				:	91.6
8		72.3		•	6	6	-			2.	-				5	
	46.5					6	1:			2	-					92.
8			81.9		6					2	93.6			93.6		93.6
			61.9		0	-	2			60	1					. 76
8	46.5	72.3	81.9	87.7	0	-	2				-		94.2		;	
	9		82.6		-	2.				5	1 -				0	96
141	45.5	72.3	95.0	88.4		2	*	95.5		. 9	-	8.96			÷	
	46.5	72.3	95.6		2.	3					1		4.66		6	.66
38		72.3	82.6	88.4		93.6	96.1	4.16	1.	7.86	4.66		4.66		6	66
001	40.5	2.	95.20	. 8	95.3	3.	1.96	4.16	4.16		4.66	7.66	4.66	•		. 66
	4.6. 1		** **						•	•		•			•	

TOTAL NUMBER OF OBSERVATIONS

155

1216

SMOS DIRNAVOCEANMET

WILLOW GROVE, PENNSYLVANIA

14793

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

PERCENTAGE FREQUENCY OF OCCURRENCE

MAY MONTH ALL

)	(FROM	HOURLY		SERVA	OBSERVATIONS	()						
CEILING							VIS	IBILITY (ST	VISIBILITY (STATUTE MILES	ES)						
(FEET)	71	4 Al	S AI	4	es Al	≥ 2%	71	V1 Y	¥1 Y	- AI	% Al	*	% Al	91/5 ≥	¾ Al	AI
NO CEILING	28.8	4	0.44	45.1	46.5	46.9	47.2	4.14	4.1.4	47.7	41.1	47.1	41.1	47.7	4.7.7	
> 20000	32.6	40	49.	51.0	2	3	3	3	3	24.0	:	54.1	*	54.1	54.5	54.
	32.7	4.7		51.2		•	53.8	54.0	•		24.4	24.4		4.	54.4	54.
2 16000	32.7	4	64	51.3		53.4	53.9	54.1	54.1	*	24.4		54.4	54.4	54.5	34
	32.7	4	50.5	51.5	53	*		54.4	54.4		54.8	24.8	54.8	54.8	;	54.
2 12000	33.6	4	51.	53.3	55	55.4	55.6			•	.0				56.5	56.
	34.8	5	55.5	57.0	59.1	29.4				60.5	9.09	9009		9.09	60.7	60
0006	34.9	52	55	57.4	9	6	4.09	60.7	0	ò	=	-	-	-	61.1	61.
	36.3	1		61.2	63.4	63.7	64.3	64.5	64.5	64.9	•	029	02.0	65.0		65
7000	36.5	56.	29	61.7	3		*	3		5		2		5	9.59	
	36.6	57.	610	e	5	2	9	0		0	-	-			-	
2000	37.4	59		65.2		67.8	68.4	68.6	68.6	69.1				69.5	69.3	69
	38.3	09	. 49			0	0			-					11.5	7
141	39.7	63.	68	10.6		73.6	74.2	74.4	*	;				75.0		75.
	40.4	65.	69	72.4		5	0		9	.0		0		9	-	-
3000	41.5	67	72.9	76.0	78.9		80.5	0	•	81.2	81.3	81.3		81.3	81.4	81.
	41.9	68	14.	17.2			-	82.2	2	2		2.			5.	82.
7 2000	42.3	70	76.	0		3	5	5	5	9		9		86.1	•	86.
	42.3		1001	80.2		6.48	85.4	86.0	86.0	9	86.5	86.5		0	86.5	86.
2 1500	42.3	71.	-	-		5			7.	æ		@		8	8	
	45.4	71.	78.2	82.2	85.8	999	88.1	88.7	80	6	89.3	6			6	89
141	45.5	71.	•	4	1.		6	0		91.1		:		-	61.3	
	45.5	71.	•		1	9	1.06	90.8	0	91.3	41.16	-		41.6	•	91.
00 AI	42.5	71.	•			60	-	2.	92.0	•	92.7	92.7	92.7	92.7	5	
	45.3	71.	•	. 4	30	89.8	6.16	6.26	6.26	3	6.76	5.		2.	30	93.
% Al	45.6	71.	19.8	84.4	9	0	-	92.7	5.		93.5			93.5	93.6	63
	45.6	71.			0.06		33.6	1.96				35.5	95.7	95.7	•	
141	45.6	71.	80.0	4	0	-	94.6	•	3		6.96		1006	46.7		96
	45.6	71.			9.06	6	98.5		6	47.7	6.10	61.6	96.1	98.1	•	98
38	45.6	71.9	80.0	84.8	0		95.5	6.96	6.96	98.0	2.86	38.5	98.6		8.86	96
	45.6	11.	80.0	84.8	9006	92.3		0.76	-	2.86	1.86	1.86	0.66	0.66	3.66	66
١٨١	45.6	71.	80.0	84.8	0	92.3	95.5	0.76				98.7	99.1	99.2	6	100

TOTAL NUMBER OF OBSERVATIONS

1240

SMOS DIRNAVOCEANMET

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

NO.

10

MO CEILING 23.3 2 20000 23.3 2 14000 23.3 2 14000 24.0 2 14000 24.0 2 17000 24.0 2 17000 25.3 2 17000 25.3 2 17000 28.0 2 17000 28.0	10 ≥ 6			-	-										
CEILING 20000 114000 114000 12000 9000 9000 9000 9000 4500 4500	-	5	1	N Al	2 2%	7	V 15	YI 74	Ā	AI	* AI	2 Al	2 5/16	AI	AI
2000 2000 2000 2000 2000 2000 2000 200	.3 38.1	41.3	0.44	46.1		0.84	48.7	48.7	48.7	48.1			48.7		48.
2500 2500 2500 2500 2500 2500 2500 2500	•	43.3	0.94	49.3	50.0		52.0	52.0	52.7	52.7	52.7	52.7	52.7	52.7	52.7
1500 000 000 000 000 000 000 000 000 000	3 40	43.3	0.04	49.3	0	51.3	52.0		52.7	52.1	52.7	52.7	52.7	52.7	52.
14000 12000 10000	3 40	43.3	0.94	6.64		51.3	52.0	52.0	52.7	52.7	52.7	52.7	52.7	52.7	52.7
2000 2000 2000 2000 2000 2000 2000 200	1,0	44	1.05	50.0	0	52.0				53.3	53.3	53.3	53.3	53.3	53.3
000 000 000 000 000 000 000 000 000 00	41.	1,	46.7	50.0	50.7		52.7	52.7	53.3	53.3	53.3	53.3	53.3	53.3	53.3
26 26 26 26 26 26 26 26 26 26 26 26 26 2	43.	95	1.84		53.3	5			56.7	56.7		0	56.7	56.7	56.
200 200 200 000 000 000 000 000 000 000			48.7	52.0	53.3	55.3	26.0	•	56.7	56.7		56.7	56.7	56.7	56.7
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	.3 48.0	50	53.3	9			:		2.		2		050	62.0	62.0
986 5000 9000 5000 1300			54.7	58.0	0.00	62.0	62.7	62.7	63.3	63.3		63.3	0	63.3	63.3
8 8 8 8	69	52	55.3	100	0	0	-		4.	64.1	:		90	54.7	. 40
1300	50.	-	56.7	60.7	62.7	64.7	10	65.3	66.7	66.7	66.7	66.7	66.7	66.7	66.7
380		56.0		m	0	1:	00		0	0	70.0	70.	70.0	70.0	70.0
3500	.0 53.3	-	1.09	65,3	67.3	69.3	70.7	70.7	72.0	72.0	72.0	72	72.		72.0
3	54.	28	61.3		10		-		2.	72.7	72.7	72.	72	72.7	72.
3000	.3 56.7	19	65.3	0	72.0	74.0		75.3	76.7	76.7	76.7	76.7	-		76.7
360		62.0	0.99	1001	2.		0.01		17.3				17.3	77.3	1
> 2000 31		0.49	68.0	74.7	76.7	79.3	-	61.3	82.7	82.7	82.7		82.7	82.7	82.7
900		0.49	68.7	75.3	-		0.28			83.3		3	83.3	83.3	83.
35		0.99	70.7	78.0	80.0	82.7				86.0	86.0			86.0	86.0
1300		68.1	73.3	80.	82.1	0.98	68.0	88.0	89.3	89.3	0		89.3	89.3	89.
34		1 68.7	74.0	81.3	83.3	87.3	89.3	•	90.7	90.7	90.7	91.3	91.3	91.3	91.
8		1.89	74.0	81.3	83.3	87.3	89.3	89.3	1.06	1.06	0	:	91.3	91.3	91.
34		1.89	74.0	81.3	63.3	87.3	89.3	89.3	2006	91.3	91.3		95.0	92.0	95.0
200	1	1.89	14.0	81.3	0.48	88.0	0	0.06	91.3	0.26			1.26	7.26	.26
8	.0 63.3	-	74.7	82.0	64.7	68.7	1006	40.1	92.0	92.7	92.7	93,3	93.3	93,3	93.
8	53.	69	75.3	82.7	85.3	89.3		91.3	93.3	0.06	*	94.7	1.76	74.7	. 76
141	.0 63.3		76.0	83.3	86.0	7.06	92.7	92.7	24.7	95.3	95.3	96.0	96.0	96.0	96
98	1	-	0.91	84.0	1.98	91.3	0.46	0.06	9	1.96	1.96	97.3	97.3	97.3	97.
1 200 34	63	70.0	16.0	84.0	299	6116	0.46	0.46	96.0	1.96	96.7	97.3	97.3	97.3	97.
8	0	0.0	0.97	84.0	86.	91.3	0.46	0.06	0.96	98.0	98.0	1 86			98.
24	.0 63.3	70.0	16.0	84.0	1.98	811.3	0.46	0.06	0.96	98.0	0.86	99.3	86.3	66.3	1001

150

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TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

MILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF OCCURRENCE

FROM HOURLY OBSERVATIONS)

1 \$ 1) Sanoa 2 40

I

78.0 56.0 0.09 69.3 75.3 75.3 81.3 80.7 83.3 52.0 52.0 52.0 52.0 60.7 84. ٨١ 26.0 52.0 26.0 69.3 75.3 78.0 0.09 62.7 0.01 52.0 0.09 0.00 86.0 78.0 81.3 83.3 52.0 52.7 75.3 80.7 84.7 60.7 ۸۱ 0.40 0.00 26.0 50.7 51.3 51.3 52.0 52.0 52.7 52.7 62.7 15.3 78.0 26.0 0.0 73.3 52.0 52.0 52.0 18.0 81.3 83.3 86.0 69.3 83,3 0000 80.7 84.7 60.7 2 5/16 20.0 20.0 6.69 10.0 78.0 81.3 86.0 52.0 62.0 63.3 63.3 64.0 75.3 58.0 59.3 59.3 60.0 18.0 58.0 59.3 59.3 60.0 62.7 15.3 80.7 82.7 83.3 83.3 84.7 ٨I 17.3 74.7 78.0 80.0 80.0 51.3 52.0 52.0 0.09 77.3 62.0 84.0 85.3 51.3 55.3 69.3 69.3 51.3 54.0 55.3 55.3 67.3 68.7 68.7 74.7 74.7 80.7 51.3 14.1 82.7 A 0.09 84.0 85.3 77.3 51.3 14.1 75.3 77.3 55.3 58.0 60.7 62.0 51.3 82.7 51.3 80.7 80.0 82.7 AI AI 55.0 54.0 20.1 78.7 68.0 0.09 75.3 50.7 56.0 58.7 72.7 82.7 _ AI VISIBILITY (STATUTE MILES) 52.0 19.3 72.0 69.3 72.0 6.65 69.3 75.3 78.0 0.49 55.3 59.3 76.7 64.7 76.7 69.3 25.0 59.3 78.0 79.3 55.3 26.0 62.0 64.0 72.0 67.3 69.3 48.7 58.0 0.27 75.3 74.7 76.7 54.0 72.0 67.3 70.0 70.0 47.3 2005 54.0 56.7 58.0 48.0 72.7 59.3 62.7 47.3 3.3 3.3 74.7 0.9 50.7 47.3 54.7 7 47.3 0.44 0.49 53.3 44.7 56.0 60.7 64.0 69.3 70.0 68.7 69.3 50.7 51.3 66.7 11.3 69.3 24.1 20.1 55.3 58.7 66. 2 2% 45.0 0.84 0.99 0.09 68.0 47.3 52.0 26.0 0.99 50.7 41.3 0.99 1.99 41.3 48.0 58.0 63.3 59.3 65.3 41.3 19.3 28.7 36.0 40.7 44.7 50.7 58.0 63.3 56.0 60.7 1.85 Al 51.3 38.0 0.09 40.0 64.7 0.09 54.0 61.3 0.44 0.95 0.09 50.7 39.3 44.0 37.3 1 39.3 6.63 33.3 69.3 52.0 41.3 36.7 45.3 26.0 33.3 28.7 36.0 50.7 26.0 33.3 37.3 46.0 52.7 52.7 42.1 1 32.0 32.0 26.0 0.00 000 26.0 26.0 34.0 32.7 34.1 45.0 42.7 42.7 42.7 43.3 40.7 42.1 AI 25.3 22.0 0.97 20.0 24.0 26.0 19.3 22.0 25.0 26.0 20.0 21.3 21.3 22.7 25.3 25.3 26.0 16.7 15.7 23.3 16.7 15.7 2 NO CEILING (FEET) VI VI 00091 00091 12000 VI VI 80 80 80 80 80 4000 2000 8 8 8 8 > 20000 2 800 2 800 2 800 9000 3800 88 88 A1 A1 AI AI AI AI AI AI ALAI AI AI

TOTAL NUMBER OF OBSERVATIONS

150

92.0

92.0

92.0

92.0

91.3

91.3

88.7

94.0

84.0

79.3

74.0

7007

61.3

24.0

81.3

81.3

0.8/

0.06

84.7

84.7

80.0

14. 74.1

> 71.3 71.3

85.3 85.3

0.0B

14. 74.

9

26.0

80

ALA

26.0

88

AI AI

20.0

80.0

88.7

85.3 86.0 88.0

0.46 96.0

0.46

0.96

96.0

95.3

88.7

86.7

86.7

86.7

66.0

86.0

83.3

80.0

30.0

7007

71.3

58.0

61.3

24.0

43.3

56.0

26.0

26.0

88

AI AI

0.96

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

C7 SON

1

CEITING							VISI	BILITY (STA	VISIBILITY (STATUTE MILES)	(S)						
(FEET)	2 41	9	8 41	4	41	2 2%	12	¥1 ¥	¥1 ¥1	-	AI	*	Z.	≥ 5/16	Al	O AI
NO CEILING	15.3	30.7	39.3	38.7	41.3	47.3	43.3	43.3	43.3	43.3	44.0	44.0	44.0	48.7	44.0	48.7
18000	15.3	33.3	1	42.0	45.3	47.3	0.84	0.84		48.0	48.7	48.7	48.7	48.7	48.7	48.7
	15.3	34.0		42.7	46.0	48.0	700	48.7		• •	• •	49.3	49.3	1.69	49.3	49.3
1 1 2000	15.3	35.3		0.44	47.3	49.3	50.0	50.0	0	20.0	0	50.7	50.7	50.7	50.7	50.7
0000	16.7		1	45.7	50.7	53.3	54.0	54.0		54.0	55.3	55.3	55.3		55.3	55.3
- 1	16.0		1	51.3	56.0			0			12	62.0	7	2	7	62.0
141	18.0			52.7	57.3	60.7	62.0		2		63.3	63.3	63.3	3		63,3
	16.0	1		53.3			3	3.	3.			04.1	1:50	64.1		54.7
2000	16.0		49.3	54.0	58.7	65.0	;			*	65.3	65.3	65,3	65.3	65.3	65.3
× 4500	0 0		50.7		0.	63.3	65.3	65.3	5		1.99					66.7
	•	1		200	-		0		0	0	•	000	•		0000	0000
3000	100			56.7	62.0	65.3	0 0	9 0	68.9	60.00	71.3	71.3	71.3	71.3	7103	71.3
-1	18.7	45.3	1		5			20	100	0		2	1		72.0	72.0
141	18.7	45.3		57.3	;			71.3		73.3	75.3	75.3		75.3	2	75.3
VI 081		1	1	100	64.1			72.0	2	74.0	76.0	76.0	16.0	16.0	76.0	76.0
_	14.3	_ 1		0.09	1.00	0	14.0		:	100		1001	1001	•		1001
VI VI 200 200 200	19.3			62.0	70.0	3.3	77.3	78.7	78.7	80.7	82.7	82.7	82.7	82.7	82.7	82.7
1	19.3	1	54.7			15.3		80.7	0		84.1			84.7	84.7	84.7
8	19.3	46.7		62.7	71.3	76.7	81.3	83.3	3.	86.7	88.7	88.7	88.7	88.7	88.7	88.7
78			1	0.49	72.7			86.0	9				_		6116	91.3
8	19.3	47.3	- 1	65.3	74.0			87.3	-	1006		92.1		72.7		92.7
88	19.3	4.00		600		000	90	000			•	43.3	93.3	73.3		93.3
3	17.5	-	1	6.00		00	2010	0 . 0	200	1026	25.5	n K			2000	7203
88	19.3	4.7.0		65.3	74.7	80.7	2 10	89.0		92.1		96.7			28.7	98.7
8	19.3	1	1	65.3	14.1	000	87.3	89.3	89.3	92.7	1.96	1006		0.86	7.86	98.7
•	19.3			65.3	74.7	80.7	87.3	89.3	89.3	45.7	1.96	1.96	98.0	98.0	98.7	0000

150

TOTAL NUMBER OF OBSERVATIONS

86.0

57.3

48.0

51.3 51.3

67.3

.04

59.3

62.0

7

71.3

63.3

63.3 71.3

63.3

63.3

63.3

63.3

63.3 71.3

63.3

63.3

62.0

61.3

58.

26.0

21.3 46.7

3800

AI AI

AI AI

ALAI

AI AI

ALAI

AI AI

AI AI

AI A

71.3

71.3

71.3

71.3

71.3

71.3

70.0

68.0

65.3

23.3 51.3 62.0

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

HOURS (L S 7 01

-

200

=

59.3 0.09 62.0 48.0 51.3 55.3 26.0 51.3 47.3 51.3 46.7 55.3 51.3 0.09 47.3 48.0 59.3 59.3 62.0 56.0 57.3 0.09 0.09 61.3 51.3 55.3 30.0 57.3 62.0 48.0 51.3 46.7 2 57.3 59.3 62.0 48.0 47.3 26.0 51.3 51.3 55.3 46.7 46.7 57.3 59.3 51.3 0.09 62.0 47.3 51.3 48.0 55.3 26.0 46. PERCENTAGE FREQUENCY OF OCCURRENCE 47.3 55.3 0.09 57.3 48.0 51.3 51.3 26.0 62.0 59.3 46.7 46. 46. VISIBILITY (STATUTE MILES) (FROM HOURLY OBSERVATIONS) 0.00 47.3 55.3 0.29 48.0 57.3 51.3 56.0 56.0 59.3 59.3 51.3 46.7 46.7 48.0 55.3 57.3 51.3 61.3 0.09 62.0 51.3 46.7 55.3 62.0 51.3 6.1.3 0.09 57.3 51.3 56.0 48.0 59.3 46.7 46.7 <u>۸</u> 47.3 48.0 59.3 55.3 58.7 60. 46.7 50.7 54. 26. 46. 20. 47.3 58.0 55.3 26.0 46.7 48.0 50.7 50.7 60.09 46.1 54.1 58.7 46.7 AI 57.3 0.94 24.0 69.3 58.0 45.3 65.3 46.7 6.65 53.3 56.7 4 51.3 0.44 51.3 24.0 43.3 47.3 52.0 47.3 55.3 43.3 54.1 44. 37.3 0.44 38.0 0.44 0.95 0.94 0.95 40.7 36.7 44.7 40.1 36.7 36.7 ٨١ 20.0 18.0 0 0.8 0 19.3 18.7 9.3 20.02 20.0 20.7 20.7 20.1 2

NO CEILING

2 20000

(FEET)

VI VI 8000 0000 0000

V I V 12000

000 000 000

AI AI

9 9

AI AI

AI AI

\$ \$ 8

AI AI

80.0 80.0 73.3 0.0010.00100.0100.0100.0100.0100.0100.0100.0 98.0100.0100.0100.0100.0100.0100.0100.0 90.7 86. 90. 80.0 80.0 66.66 73.3 85.3 40.4 1006 93.3 86.7 95.3 7.96 73.3 80.0 7.06 80.0 65.3 93.3 95.3 86.7 96.7 90.7 66.3 80.0 80.0 73.3 85.3 95.3 99.3 86.7 90.7 93,3 90.1 96.7 80.0 85.3 80.0 73.3 93.3 95.3 86.7 40.1 7.96 90.7 80.0 13.3 80.0 85.3 93.3 95.3 90.7 1.06 96.7 86.7 80.0 66.3 80.0 85.3 73.3 1.06 95.3 86.7 93.3 90.7 96.7 80.0 0.06 92.0 61.3 0.06 85.3 73.3 0.46 80.0 86.7 95.3 80.0 0.06 0.86 80.0 85.3 0.06 0.26 95.3 6.16 73.3 0.46 0.86 86.7 30.0 85.3 80.0 93.3 89.3 73.3 6116 89.3 7.46 7.96 96.7 1.96 1.96 86.7 1.96 196 37.3 12.0 0.48 92.0 87.3 18 66.3 78.7 92.1 90. 92. 82.0 88.0 10.0 76.7 86.0 87.3 88.7 83.3 84.7 76.7 88.1 84. 88. 26.3 82.0 73.3 81.3 82.0 70.3 80.7 82.0 73.3 78.7 18.7 82.0 82.0 67.3 68.7 73.3 73.3 74.0 0.09 0.4 74.7 72.7 74.7 68.7 72.7 74.7 14.1 74.7 59.3 59.3 24.7 56.0 56.0 25.3 60.0 0.09 60.7 52.7 25.3 58.7 58.7 60.7 000 60.7 25.3 25.3 24.0 25.3 25.3 25.3 25.3 25.3 24.7 59.3 43.3 80 2000 8 8 88 88 900 88 88

TOTAL NUMBER OF OBSERVATIONS

150

100

14793 \$74.71OH

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

14793

73-7

73-77

13

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

	0	15.3	13.3	13.3	13.3	13.3	0.99	20.0	20.0	51.3	12.7		26.0	26.7	0.09	3.3	74.7	18.7	84.7	14.7	18.7	19.3	0.96	7.3	97.3	1.86	18.7	19.3	0000	0000	0000	0000	0000
	× Al	5.3	3.3	3.3	3.3	3.3	0.0	0.0	0.0	1.3	2.7	0.4	0.0	26.7	0.09	63.3	4.7	8.7	4.7	4.7	1.1	9.3	0.9	7.3	7.3		7.86	9.3	00.00	00.01	0.01	0	00.00
	\$/16	6.3	3.3 4	1.3 4	3.3 4	1.3 4	+ 0.0	000	0.0	.3 5	5 1 5		000	1.	0.	.3	7	3.7	7 8	1.18	3.7 8	.3	6 0 0	.3 9	1.3 9	1.		9.3 9	10.	.01	0100	10.	0
	Ai	6	•	•	4	*	45		50	~	23			26		63	7	-	å	8	80	8	6	5	0	•	98	66	-	100	20		100
	Z.	35.3	43.3	43.3	43.3	43.3	46.0	•	50.0	51.3	52.7	34.0	26.0	56.7	60.0	63.3	74.7	18.7	84.7	84.7	88.7	89.3	96.0	97.3	97.3	98.7	98.7	99.3	0000	0000	00.0	00.00	00.00
	*	35.3	43.3	43.3	43.3			0	20.0		52.7		26.0	26.7	0	63.3	74.7	18.7	84.7		88.7	89.3	0.96	81.3	97,3	1.86	98.1	66.3	00.00	00	00.00	•00	00.0
	% Al	35.3		43.3	43.3	43.3	46.0	20.0	20.0	51.3	52.7		26.0	20.1	0009		74.7		84.7	84.1	88.7	89.3	0.96	97.3	97.3	1.86	1.86	66.3	00.00	00.00	00.00	•	000
S	Ā	35.3	43.3	43.3	43.3	43.3	0.94	20.0	20.0	51.3	52.7	24.0	56.0	56.7	0.09	63.3	74.7	78.7	84.7	84.7	88.7	89.3	0.96	61.3	97.3	1.86	1.86	66.3	00.00	0000	0	10.00	00.00
VISIBILITY (STATUTE MILES)	¥1 Y	35.3	43.3	43.3	43.3	43.3	0.95	20.0	20.0	51.3	52.7		90.0	26.7	0.09	63.3	74.7	78.7	84.7	84.7	88.7	89.3	96.0	6.16	97.3	48.7	1.86	48.7	99.31	99.31	99.31	99.31	99.31
NUTY (STA	VI 75	35.3	43.3	43.3	43.3	43.3	0.95	20.0	20.0	51.3	52.7	24.0	26.0	50.7	0.09	63.3	74.7	78.7	84.7	84.7	88.7	89.3	0.96	61.3	97.3	1.86	98.7	1.86	66.3	66.3	66.3	66.3	99.3
VISI	7 7	35.3	43.3	43.3	43.3	43.3	0.95	0.06	50.0	51.3	52.7	24.0		56.7	0.09	63.3	74.7	78.7	84.7	64.7	88.7	89.3	0.96	97.3	97.3	1.86	1.86	1.86	66.3	66.3	66.3	66.3	66.3
	2 2%	35.3	43.3	43.3	43.3	43.3	46.0	0.00	20.0	51.3	52.7		26.0	26.1	0.09	63.3	74.0	17.3	83.3	63.3	87.3	0.88	0.26	93.3	93.3	1.56	64.7	1.46	24.7	1.56	94.7	1.56	1.96
	2	34.1	42.7	42.1	42.7	42.1	45.3	6.64	49.3	20.1	52.0	53.3	24.7	55.3	58.7	95.0	72.7	16.0	82.0	82.0	86.0	86.7	1.06	95.0	95.0	93.3	63.3	93.3	93.3	93.3	93.3	63.3	93.3
	AI	34.0	40.7	1.04	40.7	100	43.3	47.3	47.3	48.	50.0	51.3	52.0	52.1	54.7	57.3	1.99	0.01	75.3	15.3	79.3	80.0	84.0	84.0	84.0	84.0	84.0	0.78	84.0	0.48	0.49	4	84.0
	2 4	33.3	0.00	40.0	40.0	40.0	42.7	46.1	46.7	48.0	48.7	20.0	50.7	51.3	52.7	55.3	64.7	0.89	72.7	72.7	76.7	16.7	78.0	78.0	78.0		78.0	78.0	78.0	0.8/			78.0
	9	28.7	33.3		33.3	33.3	36.0	39.3		0	41.3	2.	43.3		44.7				0.49					68.7	58.7	58.7	68.7	68.7	68.7	68.7	58.7	00	68.7
	0 1	16.0							19.3	20.0	20.0	70.07	20.7	20.7	20.7	21.3	22.7	23.3	24.7	24.7	24.7	24.7	25.3	25.3	25.3	25.3	25.3	23.3	25.3	25.3	25.3	25.3	25.3
CEITING	(FEE)	NO CEILING	> 20000		2 16000		7 12000		000	1	7000		2000	1	90	1	3000		7000		908	1	98		8		8		8		30	8	٥

TOTAL NUMBER OF OBSERVATIONS

150

CEILING VERSUS VISIBILITY

WILLOW GROVE, PENNSYLVANIA

14793

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

16 ZOS.

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CEILING							VISI	BILITY (STA	VISIBILITY (STATUTE MILES)	(\$)						
(FEET)	2 11	o Al	5 1	AI	E 4	2 2%	12.2	¥1 ¥	V 74	-	AI	* AI	Z AI	≥ 5/16	AI	0 11
	5	30.		37.3	38.0	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7
> 20000	2	36.		44.7	46.7	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3
	17.3	36.		44.7	46.1	47.3	47.3	47.3	47.3	47.3	47.3	47.3	41.3	47.3	41.3	47.3
1 16000	-	36.		44.7	46.7	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3
		36	1	44.7	46.1	61.3	47.3	47.3	47.3	47.3	47.3	47.3	41.3	47.3	47.3	47.3
2 12000	17.3	36.		0.95	48.0	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
, -		.2.		52.7	24.1	55.3	58.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3
0006	18.7	42.		52.7	54.7	55.3	59.3	55.3	55.3	55.3	55.3	55,3	55.3	55.3	55.3	55.3
1		44.	1	56.0	58.7	29.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3
141		.5		56.7	59.3	0.09	0.09	0.09	0.09	0.09	0.09	0.09	90.0	0.09	0.09	0.09
1		40.	1	57.3	0.09	1.00	1.009	1.09	60.7	1.09	1.09	1.09	6	1.09	60.7	60.7
0005		6.8		0.09	62.7	63.3	63.3	63.3	63.3	63.3	63.3	63.3	3	63.3	63.3	63.3
1		00	1	0.09	62.7	63.3	63.3	63.3	63.3	63.3	63.3	63.3	3.	63.3	63.3	63.3
1 41		51.		62.7	65.3	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
1		53.		65.3	0.89	69.3	69.3	69.3		66.3	69.3	69.3	69.3	69.3	69.3	69.3
3000		62.		78.0	82.7	84.0	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7
1		65.	1	80.7	85.3	26.1	87.3		87.3	87.3	87.3	87.3	-	87.3	87.3	87.3
7 2000		89		85.3	90.0	61.3	0.26	95.0	92.0	0.26	050	92.0		92.0	92.0	92.0
1		68.		85.3	0.06	91.3	92.0	0.26	92.	92.0	0.26	0.26	2	92.0	92.0	92.0
180	23.3	68		87.3		93.3	0.76	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
1		68.	1	8H.	63.3	34.	95.3	95.3		68.3	95.3	95.3	2	95.3	95.3	95.3
98		68.		89.3	0.46	95.3	0.96	0.96	0.96	0.96	0.96	0.96	;	0.96	0.96	96.0
		6.8	1	80.3	0.96	95.3	0.96	0.96	0.96	0.96	0.96	0.96		0.96	0.96	0.96
8		58.		0.06	1.96	96.0	97.3	0.86	98.0	98.0	98.0	98.0		98.0	0.86	98.0
		58.	1	2006	65.3	1.9.	98.0	1.86	1.96	1.86	98.7	48.7	98.7	98.7	98.7	98.7
8		68.		40.4	65.3	1.96	0.86	48.7	98.7	66.3	66.3	86.3	66.3	66.66	99.3	99.3
		0.8	1	1.06	62.3	1.96	1.86	64.3	99.3	0000	0.001	0000	0.001	100.0	0000	0000
8	23.3	68		1.06	95.3	1.96	7.86	66.3	99.31	10000	100.001	0000	100.001	100.00	100.00	0.001
		0		1.06	65.3	1.96	98.7	66.3	99.3	0.00	00.00	00.00	0.001	100.00	0000	0000
300	23.3			40.1	95.3	1.46	1.86	66.3	99.31	0.00	0.001	0.00	100.0	100.001	00.001	0000
_	63.3	68		1.06	62.3	1.96	1.86	66.3	66.3	0.00	0.00	0.00	0.001	10000	0000	0.001
٥	3	68		1.06	95.3	1.96	7.86	66.3	99.31	0.00	100.00	0.00	100.001	100.001	100.001	100.0

TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

NO.

19 HOURS (1.5.7.)

CEILING							VISI	VISIBILITY (STATUTE MILES)	ATUTE MILE	(S)						
(FEET)	۷ ا	9	\$ 1	1	N AI	2 2%	7	71 71	¥1 VI	-	% AI	*	X AI	≥ 5/16	N AI	O AI
NO CEILING	14.7	36.0		42.1	44.	540	44.	44.	54.7	44.7	54.0	54.0	34.0	54.0	54.0	54.0
	16.7	63.3	-	51.3	54.0	24.0	54.0	24.0		54.0	4	54.0			54.0	54.0
0009	16.7	43.3		51.3	24.0	54.0	24.0	54.0	54.0	54.0	54.0	54.0	24.0	54.0	24.0	54.0
		44.0		52.0	54.7	54.1	54.7	54.7	54.7	54.7	54.1	24.7		54.7	24.7	54.7
> 12000		44.0		53.3	26.7	56.7	56.7	20.7	26.7	56.7	26.7	56.7	26.7	56.7	26.7	56.7
V 1000	19.3	48.0	1		62.0	050	62.0				62.0			62.0		62.0
0006 4	19.3	- 1	- 1	59.3					2		62.1	0201		02.	1.79	62.1
0008 AI	19.3				•		69.3	69.3	69.3			000	66	60	69.3	69.3
7000	20.0		- 1		69.3	0	•	10.	•	•	10.	100	200	100	000	1001
0009	0.00				•		12.0		200	200	•	200	100	2000	26.	2000
	20.0	- 1		07.3	•	12.0	•	15.1	•	1201	1.51	102	14.0	1.50	107/	1.50
450	61.3			0 .	1 2 5	14.	72.3	12.0	76.3	75.2	76.7	76.7	76.7	74.7	76.7	76.7
	2110			0 64	•	•	100		•		:	17.3		17.		77.3
3000 A I A	22.0			77.3	81.3	82.0	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7
	22.0			78.7	82.7		85.3	10		65.3	85.3		5	5	85.3	85.3
3000	22.0			80.7	85.3	87.3	0.88		88.0	88.0	88.0	88.0	88.0		88.0	88.0
1	22.0	1	1	80.1	5		88.0		00		88.0	68.0	88.0		88.0	88.0
1500	22.0			82.0	88.0	0.06	40.4		•	0	1.06	2006	0	•		90.7
	22.0			~	89.3	41.3	0.26				0.26		0.76		2	92.0
1000	22.7	- 1		0.43	91.3	0.46	95.3	65.3	•	Sant 1	95.3	95.3		95.3	62.3	95.3
8	22.7			0.48	•	74.0	•		•	'n.	60.00	75.3	40.3		93.9	92.3
1	66.1		- 1	0 4 4 5	25.0	70	0.00	200	OK	2000	0 4	0000	000		000	
8 8	22.7			84.0	92.7	96	97.3	97.3		97.3	97.3	97.3	97.3		97.3	97.3
	22.7	- 1	14.0	84.7	93.3	1.96	98.0		8	1000	1.86	1.86	1.86	1.86	1.86	98.7
1 11	22.7		74.0	84.7	0.46	97.3	48.7	8.66	66.3	66.3	86.3	66.3		86.3	66.3	99.3
88	22.7	54.7	00.5	84.7	0.4	97.3	98.7	00.001	00.00	0.00	100.00	0.00	0.001	100.001	0.00	00.00
		04.1	0.01	84.		97.3	7.86	0000	0	0000	0.001	0000	100.0	0000	0000	0000
1	7501	040	0.0	24.	24.0	60/6	18.	100	00.001	0.001	0.001	000	0.001	100.0	0001	000

TOTAL NUMBER OF OBSERVATIONS

150

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NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

22 Z S

CEILING																
(MET)	2	4	5 41	7	e Al	2 2%	2 2	¥1. ¥	¥1 Y	-	¾ Al	* 11	Z AI	2 5/16	AI AI	AI O
NO CEILING	26.0	39.3	42.7	43.3	0.95	46.1		61.3	47.3	47.3	41.3	47.3	41.3	47.3	47.3	
× 20000	28.7	42.7	46.7	49.7	51.3	52.7	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.
	28.7	42.7	46.7	48.1	51.3	52.7		3.	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.
14000	28.7	42.7	46.7	48.7	51.3	52.7	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.
	29.3	44.0	48.0	50.0	52.7	_	54.7	54.7	54.7	54.7	54.1	54.7	54.7	54.7	54.7	54.
7 12000	30.0	45.3	49.3	51.3	54.0	55.3	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.
	33.3	50.7		56.1	0.09	61.3	62.7	2.	62.7	62.7	62.1		62.7	62.7	62.7	
900	33.3	50.7		56.7	0.09	61.3	62.7		62.7	62.7	62.7	2	62.7	62.7	62.7	62.
1	36.0	55.3	59.3	62.0			8	8	8	8	8	8		68.0		
788	36.0	55.3	59.3	62.0	65.3	66.7	0.89		17.00	68.0	68.0	0.89	68.0	0.89	68.0	
1	36.7	26.0	0.09	62.7	0.99			6		6		6		69.3	69.3	.69
9000	38.0	58.0	65.0	64.7	68.0	•	-	-	:	-		-		71.3	71.3	
1	38.7	59.3	63.3	0.99		12.0	;			4.					74.0	
900	38.7	62.7	66.7	69.3	73.3	0	78.0	78.0	78.0					78.0	78.0	78.
1	38.7	62.7	1.99	69.3	3	0.91				80	20	80				
3000	38.7	64.7	48.7	72.0	76.0		2	2	82.7	82.7	82.7	2.	82.7	82.7	82.7	82.
	40.0	0.99	10.1	0.47			;	5			85.3	85.3		65.3	85.3	85.
7000	40.0	1.99	71.3	73.3	80.0	*	86.7	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.
	0.0	1.99	71.3	18.3	0	0.40		-		87.3		87.3	87.3	87.3	87.3	87.
200	40.0	66.7	72.7	77.3	85.0	0.98	89.3	0	90.0	90.0	0.06	0.06	90.0	90.0	90.0	90.
	40.0	66.7	72.7	78.0	82.7	86.7	0	1.06	40.7	4006			90.7	0	40.1	90.
98	40.0	0.89	74.0	90.0	85.3	69.3	2		3.	0.46	0.76	0.46	0.46		0.46	
	40.0	0.89	14.0	80.0	86.0	0.06	93.3	*		1.56	1.96		1.56		94.7	94.
8	0.04	68.0	14.0	80.0		90.0		0.46	0.46	1.76	95.3	3		95.3	95.3	95.
	0.04	68.0	14.1	80.1	86.1					95.3	0.96					96.
8	40.0	0.89	74.7	81.3		91.3	1.56	95.3	95.3	0.96	1.96	1006	96.7	96.7	96.7	96
	40.0	0.89		82.0	88.0	92.0	95.3	0.96	0.96	1.96	61.3	97.3	98.0		98.0	98.
141	0.04	68.0	75.3	82.0		92.0	95.3	0.96	0.96	7.96	6.16	97.3			98.0	98.
	40.0	0.89		62.0	68.0	92.7	0.96	46.7	1.96	97.3	0.86	0.86	98.7	98.7	98.7	96
. S	40.0	68.0	75.3	82.0	•	92.7		1.96	61.3	7.86	66.3	66.3	100.0	100.0	10000	100
8	40.0	0.89	75.3	82.0	88.0	92.1	36.0	1.96	97.3	186	66.3	66.3	0.001	100.0	100.0	100
	400							-	-	-		•	4			

150

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TOTAL NUMBER OF OBSERVATIONS

0

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

14793

WILLOW GROVE, PENNSYLVANIA

NON

				PERCEI	PERCENTAGE (FROM		FREQUENCY OF OCCURRENCE HOURLY OBSERVATIONS)	SERVA	NCY OF OCCUR	RENCE					ALL HOURS (1 5.7	1 [
CEILING							VISI	BILITY (ST.	VISIBILITY (STATUTE MILES	(8)						1
(FEE)	2	o Al		4	e Al	7 2%	7	%1 A		-	* 11	*	% Al	≥ 5/16	N AI	0 1
NO CEILING		3		39.9	41.9	45.8	43.3	43.6	43.6	43.8	43.9	6364	0.4.	0.44	0.44	0.44
× 20000		36.5		44.5	47.2	48.2		49.2	2.64	49.5	49.7	40.1	8.64	49.8	8.64	8.64
		9		44.5	47.2	48.2	6.85	49.2	2.65		49.1	1.64		•		8.64
14000	0		42.3	44.5	47.2	48.2	48.9	49.2	49.5	49.5	49.7	49.1	49.8	49.8	8.64	49.8
2 14000		37.0			47.7	48.7			•	20.0		2.05	50.3	500	50.3	50.3
				46.2	48.9	49.9		80.9	50.0	51.3	21.4	\$110	21.5		21.5	51.5
1		61.3		0	53.0	24.5		2.	2.		20.1	20.1	20.5	200	20.5	20.5
006 AI			-	50.5	53.1	54.3	3	55.5	55.5	55.8	56.5	•	50.3	56.3	20.3	
1			50.9		57.3	58.1	59.8		1.09	6009	80.8	8 .09		ċ	0	6.09
700		45.1		24.0	58.1	59.8	60.7	60.09	6.09	61.3	61.7	61.7	61.8	61.9	61.8	61.8
			-	55.8	58.9		61.8	0.29	050	65.3	62.8	950	65.9	65.0	65.6	65.8
900		47.2		57.2	9.09	62.2	63.5	63.8	63.8	64.3	9.49	9.49	2.49	64.7	64.7	1.49
			-	58.5	-		92.0	65.3	65.3	3	2.09	2 . 99	60.3		66.3	60.3
141			-	60.5	;	66.2	67.6	0.89		9.89	68.8		0.69		0.69	0.69
				61.5	3		68.89	69.3	69.3	6.69	10.3	10.3	10.3	10.3	10.3	70.3
300	5	24.6	65.3	67.2	71.7	13.8	75.6	76.1		76.8	77.3	77.3	77.4	77.4	77.4	77.4
1			-	1.89	73.2	15.6	-	6.11						19.3	19.3	19.3
2000	26.3	57.8	-	711.7	77.0	10.4	81.4	82.1	82.1	82.9	83.4	8	83.5	63.5	83.5	83.5
			1 -	71.6	77.2	19.6	91.0			83.1	83.6	83.6	83.1	83.7	83.7	83.7
1 71				74.3	80.0	82.4		85.3		86.2	86.7	86.7	86.8	86.8	86.8	86.8
1	26.8	59.6	68.8	75.3			85.8	86.6	86.6	87.4	87.9		88.0		88.0	88.0
90	27.0			16.6	5		88.4	89.4			91.0	91.0	91.2	91.2	91.5	91.2
	27.0	2.09	1.69		3	0.00	88.9	89.9		6006	61.5	-	-	1016	1.16	91.7
8	27.0			6.91	83.8	86.7	89.8	91.0	7		0.56		93.2	93.2	93.5	93.2
	27.0			77.5	ec	67.1	91.0		2.26	43.4	2.46			6.46	6.46	64.3
8	27.0	9.09	70.3	77.9		88.3		6.26		94.3	0.56	0.56	95.2	95.5	95.2	95.2
	27.0	9.09	10.4	78.2				•	93.8	3.	6.96	6.96	90.5	96.5	5006	5.06
8	27.0	0		78.3	86.0	89.3	63.3	94.8		36.5	97.3	97.3	91.0	91.6	91.0	91.6
	-	0		6.87	9	5.62	93.5	2.66		1.	0.86	0.86		98.3		98.3
38	1.		70.5	78.3		88.5	93.5	95.3	95.3	97.3	98.5	98.5	6.86		0.66	1.66
	27.0	0			0		3	95.3			1.86	1.86	1.66	36.5	99.3	6.46
0	7	9.09	70.5	78.3	86.2	69.5	93.5	95.3	95.3	97.3	1.86	98.1	99.3	88.3	49.66	000

0

TOTAL NUMBER OF OBSERVATIONS

CEILING VERSUS VISIBILITY NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

7

1

10

CEITING							VISI	BILITY (ST.	VISIBILITY (STATUTE MILES	£S)						
(FEET)	01 7	9	\$ AI	AI	E Al	× 2 ×	1 2	V1 V	71 71	- AI	% Al	*	Z Al	≥ 5/16	N N	٨١
NO CEILING		47.	54.8	56.1	58.1		61.9	63.2		63.2			3.	3.	3.	63.2
> 20000		20.	58.7	61.3	6	8	67.7		6	•	6	6	6	6	6	69.0
7 18000		50.	58.7	61.3	63.9	5	67.7	0.69	0		6	6		6	6	
14000		50.	58.7	61.3	63.8	65.8			0.69	0.69	0.69	0.69	0.69	6	0.69	69.0
		50.	58.7	61.3	3		67.7		6	6	6			6		0.69
12000		51.	0.09	65.6	5	67.1			0	0	70.3	70.3	0		•	70.3
		52.		63.9	67.7	6			*			74.2	*	4	74.2	74.2
000		52.	61.3	63.9	67.7	69.7	72.3		74.2	74.2	74.2	;		;		
		54.		65.8		11.6	3	75.5	9		. 9			0	0	1001
141		54.	63.2	65.8	1.69	71.6	74.2	75.5	76.1	76.1	76.1	76.1	•	76.1	76.1	76.1
1		55.		67.7	-		9		0	•	78.7		0	82		78.7
900		56.	66.5	0.69	73.6	75.5	78.1	80.0	80.7	80.7		80.7	80.7	0	80.7	80.7
1		58.			4		6	-		-		81.9	-		81.9	81.9
1 1		.65	0.69	71.6	76.8	78.7	81.3	83.2	84.5	84.5	;		84.5	;	84.5	84.5
1		56					-	83.9	5	3	2	85.5	5	2		85.2
3000		.09	70.3	73.6	19.4	81.9	85.2	87.7	0		6	89.7	6	6		89.7
1		-09				-			6		89.7	•	89.7	89.7	89.7	6
1 4 1		.09	:	73.6		6.18	30	89.0	90.3	-	-		-	-	-	91.0
		.09	70.3						0		-	•-	0.16			91.0
1500		61.	71.6	74.8	•		•		•	65.6	6.26			2		92.9
		61.	71.6	78.5	81.3	3.	-	-:	2		3.	3	93.6		•	93.6
1 1		01.	71.6	75.5	:	83.9	87.7	-	65.6	;	*		*	*	;	94.8
		61.	71.6	75.5	81.3		-						3	*	8.46	8 . 76
8		62.	72.9	76.8	82.6			•	•	2	1.96	1.96	96.1	1.96	96.1	96.1
		62.	•	76.8	3		0	65.6		5	1.96	1096	•.	9	96.1	96.1
8		62.	72.9	16.8	83.5	83.8	69.7	93.0		•	. 9	9	4.16	97.4	4.16	97.4
		62.	72.9	16.8	3	92.0	0	34.2	95.5	8.96	1.86		6	6	4.66	40.66
9	28.4	62.6	72.9	76.8	83.2		-	94.8	9	97.4	4.66	30.4	0	0	0000	00.00
		62.	12.9	16.8	3	6.99	91.0	94.8				90.66	00.00	•	0.001	00.00
38		62.	72.9	76.8	83.2	86.5	91.0	94.8	96.1	91.4	4.66	40.66	•	0000	0000	00.00
		. 29	12.9	16.8	3		91.0	8.46		4.4	7.66	7.66		0	•	0000
٥		63.	72.9	76.8	83.5	86.5	0.16	94.8	96.1	97.4	4.66	40.66	00.00	0000	0.001	00.00

TOTAL NUMBER OF OBSERVATIONS

155

8000

SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING																
(FEET)	5 71	9	81	4	۳ ۸۱	2 2%	12 2	V1 V	¥1 VI	-	% Al	*	Z Al	2 5/16	7	٨١
NO CEILING	20.02	33.6	33	0.14				52.9		m 0	54.0		54.	54.8	54.8	54.
-	200	74	7	7 4	5	•	5			5	:	-				
009 1 Al Al	20.7	36.1	4	0	0				9 00	0 0	::		6	61.9		9
	20.7	36.1	41.	0	0		9		8	0	:		91.			61.
17000	20.7	36.1	41.	46.5			;			ċ			61.			61.
	63.9	40.1	40.	-			-			2			0			67.
8	24.5	41.3	47.	51.6			-		,	9			67			67.
000	5.45	42.6	4 4	53.6	58.1	62.6	65.2	4.69	4.89	71.0		72.3	12	72.3	72.3	::
	24.5	43.2	49	54.5			. 0		6				12			72
200	24.5	43.5	49.	54.8	0					8			73.			73.
	5.47	43.2	6.5	54.8			-			2			13.			5.5
	25.8	65.7	510	26.8	3 5				2 10				0			9
3000	26.5	46.5	52	58.7	65.8					6			80			
	1.72	47.1	53.	59.4			9		6	-			.78			83.
7000	27.1	47.7	54.	60.7					:	ė			84	3		85
	1.17	47.7	24.	1.09					-				84			85.
1500	-	47.7	55.	61.9	-		6		2	;	•	•	86.	-		
7 1200	-	50	0	65.6	•					•			0 0			8
	-1	49.7	2/	63.4			-	•	2	0			0	-	•	-
88	27.1	50.3	28	65.2	74.2		9 6			91.0		92.9	92	94.2		94
	27.1	50.3	58.	65.2				87.7	-	-	7		.76			
8	27.1	50.3	58		74.2			98.4	8		3		93	*	8.46	94.
	27.1	50.3	28.					88.4		-	3		63			
007	27.1	50.3	28		4		3	4.88		-		3	63	5		96
88	27.1	50.3	58.	65.8	74.8	7.61		89.7	89.7	92.9	94.8	94.8	9 5	96.8	98.7	99.
	27.1	50.3	58	5.			m		6	3.	4	3	95.	41.4	1.86	66
3		The state of the s		-								-	-			The same same

155

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TOTAL NUMBER OF OBSERVATIONS

14793

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

MILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

07 HOURS (1.5.T.)

JU.

200

	٨١	54.2	58.7	59.4	66.5	70.3	73.6	76.1	78.1	82.6	83.2	89.7	90.3	95.5	96.8	97.4	0000
	N N	53.6	58.1	58.7	65.8			75.5			82.6	87.1	94.2	94.8		96.8	98.71
	> 5/16		58.1	80 0	65.8	00	25	75.5	-0	- 2		87.1		94.8	96.1	0 00	98.7
	Z Al	58.1	58.1	58.7	65.8				. 0				94.2	94.8	96.1	96.8	98.7
	*	53.6	58.1	58.7						81.9		88.4	92.9	93.0		95.5	96.1
	% Al	53.6	58.1		65.8				. 0		-15	90	92.9		94.8	95.5	96.1
ES)	<u></u>	53.6	58.1			00	2 4		. 0		-50	88.4	6 %	m 4	* *	0.0	96.1
VISIBILITY (STATUTE MILES)	¥1	51.6		00	63.2			73.6			æ -	82.6		0 0	90.3		91.6
IBILITY (ST	V1 7/2	51.6	56.1	56.1	30		6.1		75.0		81.3	84.5	85.2	90.9	90.3	91.0	91.6
VIS	7	54.5	54.2	3 a		64.5	-0	71.0		75.8	100	19.4		+ 10	85.8 55.8		86.5
	1 2%	a ~			60.00	62.6		30			71.6	74.2	76.1		76.8	77.4	77.4
	e Al		51.0			00	00	60.09	- 6	200	65.2	67.1	69.7	7.69	70.3	71.0	71.0
	4	41.9	46.5			m m	53.6	3 0		58.1	58.1	59.4	61.3	61.3	61.3	61.3	61.3
	λI		00	0	42.6		0.00	500			00	0.0	· :	-:	51.6	-:	51.6
	9 AI		36.1			40.7		41.3		43.9		44.0			45.2	m m	
	01 %	* *	14.2	4 3	14.8	4 4	4 4	3 3	14.8		14.8	4 4			* *		14.8
CEILING	(FEET)	NO CEILING	VI VI 00091 VI			900 7000 7000	0006 Al Al	VI VI 8004	3200	7 2000	VI VI 081 082	VIVI 080 080	88	VIVI 88	88	88	80

TOTAL NUMBER OF OBSERVATIONS

155

180

SOWS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

10 HOURS (1.5.7.) 100

0940

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

	-	2	*	*	4	0	0	10	2	m	9	2	80	-	4	~	0	0	00	20	m	0	60	4	*	-	-	-	*	0	0	0	0
	AI	24.	29.	59.	59.	909	61.	65.	99	9	7	12.		76.			81.		85.	85.		95.		. 16	97.		98	98.	66	00		00	
	۷I	24.2							66.5					.0	77.4			83.9	85.8	85.8	90.3	65.6		4.16	91.4		1.86	98.7	4.66	0.00	•	0.00	0000
	≥ 5/16	24.2	6	6	29.4	0	-				71.6	2	*				81.3	83.2	2	5		92.3			96.8			98.1	8.	4.66	6	5.66	6
	NI %		6			0	-	2	90.5	0	-	N	*	3	76.8		-	3.	2	85.2	89.7	7	1.96	.0	0	-	00			7.66	4.66	4.66	•
	*	2006	:		29.4		-		66.3			2.	*			8	-	3.			6	2.	•		•	91.4			28.1			9.66	•
	λ. Al	24.5	6		6	0		3	66.5	0	-	2	*	2	. 9		:	3	3	3	6	2	96.1	. 9	0			1.86	1.86	4.66	4.66	4.66	•
(S)	Ā		•		29.4	0		3	66.5		-	2	*	5				3	3	85.2			1.96	c			98.1	98.1	98.7		4.66	40.66	4.66
VISIBILITY (STATUTE MILES)	7	*	29.4	6	6	0	-	5	66.5						76.8								65.5				4.16		98.1	1.86	1.96	1.86	
BILITY (ST.	٧٢ ٧٧				29.4		•	5		70.3		72.3			76.8		80.7			84.5		91.6	2	1 . 96			4.16		1.86	1.86	•	1.86	
VISI	% Al		œ	58.7	58.7	6	61.3		65.8	0	-	-	*		76.1	0	ò	-	3.	3	*	-	8.46	3.	5	9	.0		-				-
	Y 2%	23.6	23	58.	58.7		61.3	3	65.8		-	-	•	*	76.1	9	ċ	-:	•	3	-			3.			34.5		34.5	2.56	34.5	2006	•
	es Al		58.1		58.1		0	*	64.5	8	6	.0	2.	3.	74.8	5.		0	-		3		6	89.7		6.06	0	6.06	90.3		0	6006	0
	AI AI	-	56.1	56.1	56.1	9	58.7	2	62.6		66.5		0.69		0				75.5	75.5	78.1		81.3	61.0	81.3	81.3		61.3	81.3	81.9	81.3		81.3
	\$0 Al		-		0										63.2								70.3								70.3	10.3	
	۰ ۸۱				43.9										55.5						59.4		60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	2.09	
	5 7	6		6	19.4																										21.3		. 1
CEILING	(FEET)	NO CEILING	> 20000		14000		7 12000	1	900	1	141	1	200		100		3000		7000		28		8		8		3	1	141		38		٥
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TOTAL NUMBER OF OBSERVATIONS

155

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793 STATION

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

13 HOURS (1 S T.) JUL

	0	4.	. 2	.2		.5	4.	4.		0.	.2		.5		-	:			6.	-	-	*	4	*	*	0	.0	0	0.	0	00
	ΛI	548	54	54	54	55	55	53	61	5	63	40	99	72	2	87	90	92	92	96	96	2	5	66	66	100	100	001	001	200	000
	2	40		2		5	4.	4.		0		3	.5	~	-	7	3	3	0	-	7	*	*	*	4	0	0	0	0	2	00
	Al	5 48	54	54	54	55	29	29	9	19	63	90	99	72	10	87	06	35	26	96	96	26	16	66	66	8	00	0	000	3	200
	•	40	10	2	00	10	*	4	ces	0		5	50	m	-	_	~	•	0	_	-	*	4	*	•	0	-1	4	-	5	00
	5/16	20 4	4	4	4	5	-	6	-	-		*	9	2	¢		.06			9	96	-			6	0	0	0		5	00
	AI	40	5	3	2	50	5	S	9	0	0	9	0	-		00	3	0	6	6		0	0	0	0	2	0	2	0.	? :	00
	2	4.		4.2	4.8	5.5	4.	9.4		3	.2	4.5			:	:				÷				4.	4	0	0	0	0		20
	Al	348	54	3	36	3	3	5	0	9		Š	ŏ	72	~	87	06	6		00		97	0	66	66	100	001	100	000	3 6	200
	*	40	~	2	8	5	3.	4		6	2.	5	.5		7	-			0	-	-	4	4	4	3	0	0	0	0	2 6	00
	AI	2 2	54	24	24	52	-	29	19	61	63	49	99	72	9	87		35	36	96	96	41	6	66	66	00	00	00	00	3 6	900
	-	* 1	12	2	8	5	5	4	3	0	2	2	-	3	-	~	_	3	6	-	-	4	*	4	*	0	0	6	0	5 6	36
	Al Al	00 4		4	*	5	6	6	-	-	3	4	0	2	0		0	~	3	9	9	-	-	.66	66	00	0	00	00	9	00
		2 12	-	N	5	n.	5	E	0	9	9	9	9	-		0	0	0	6	0	5	6	0		_	-	07	-	-	-	30
	-	4.0		~		5	. 4		•	-	3.2			2.3		3	•	2.3		6.1	•		4.		4 . 4	0.0	0.0	0.0		0.0	00
<u>§</u>	Al	4 10		3	54	5	5	Š	0	0	0	40	9	-	-	87		6	92		96	0	0	66	6	001	õ	01			00
1	7/1	40	12	N	00	3	4	4	n	6	~	5	S	3	~	-	3	3	6	7	-4	4	4	4	3	0	0	0	0	0	00
TO.	٨١	548	34	24	34	25	29	29	19	10	23	99	99	72	9	87		35		96		5	6	66	66	00	00	00	00	200	000
VISIBILITY (STATUTE MILES)		* 0	IN	N	00	5	3	*	44	C	~	2	S	m	-	_	_	ED.	0	-	-2	3	*	3	4	0	0	7	0	0	30
Ě	17%	8 4	3	*	5	2	6		-:	-	3	;		2.	0	7.	0	2	2		0	1		6	6	00	0			5	00
SIBIL	ΛI	42	1	10	5	3	m	5	0	0	0		0		-	00	06		1_	9	o			0	0	-	100	07	100	2	99
ž	7	40				3	4.	4		5.	.2			0	5						3		30			4.		4.	4	•	* *
	Λí	4 50	54	24	30	3	59	59	S	5	63	20	65	7	7.5	86	89	0	92	95	95	96	96	98	98	66	66	66	60	7	9 9
	*	4 0	N	N	63	2	3	4	3	0	2	S.	80	0	5	5	-	0		10	2	20	00	-	-	-	-	-		-	- 1-
	2 2%	5 3	10000	34	\$	55	60	29	0	6	63	90	5.5	7	S	86	80	5		95	3	9	96	8	93	80	86	90	00 0	0 0	2 22
		40	-	N	80	iv.	3	4	3	0		S	80	0	2		0	0	-	9	9	N	~	5	2	_	-	-	-	-	
	M Al	60		*	4		0	6	-	-		*	3	•			0	-	-	3	3			3	3		0	.0	9	200	90
		4 2	1	50	2	S	5	10	0	0	9	0	9	~	-	00	8	a	a	9	6	0	C	0	5	6	0	0	20	-	20
	4	-0	5	0	9.	~	-	-	0		6.		5		0					4.	5.	0.	•								
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	•	0 6					3	9			6			2					•	•	•	•	•								
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	N N	90	00	0	87	2	18	00	.8	100	10	2	18	0	0	-	-	-	21	57		-	7	-	53	-	12	~	20		イブ
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DZ.	E	CEILING 20000	8	1600	000	12000	00	8	8	2000	8	2000	8	1000	900	3000	200	2000	908	1300	8	1000	8	8	700	8	80	400	8	3	80
CEILING	F	20 CE	1 4	1 11		1 11	1	٨١		IAI	1	1 11	1	1 71		111	1	i Al	1	1		1 1		Al		IAI		IAI	ALA		AI AI
		오 ^			L		L		L		L		L		L				L						L					1	

JAN 78

TOTAL NUMBER OF OBSERVATIONS

155

100

SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

HILLUM GROVE, PENNSYLVANIA

73-77

16 HOURS (1 S T.) JUL ...

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

N			-					A K	≥ 5/16	1	
CELLING 17.4 38.7 44. 20000 18.7 43.9 51. 16000 18.7 43.9 51. 12000 18.7 43.9 51. 12000 18.7 43.9 51. 2000 20.0 49.0 57. 2000 20.0 49.0 57. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 49.7 58. 2000 20.7 72. 2000 21.3 61.3 74. 2000 21.3 61.3 74. 2000 21.3 61.3 74. 2000 21.3 61.3 74. 2000 21.3 61.3 74.	3 56	Y 3 Y 2%	~ Al	YI %1 YI	14 14	X Al	*				٨١
20000 18.7 43.2 50. 18000 18.7 43.9 51. 12000 18.7 43.9 51. 12000 18.7 43.9 51. 2000 20.0 47.7 55. 2000 20.0 47.7 55. 2000 20.0 47.7 55. 2000 20.0 49.0 57. 2000 20.1 49.7 58. 2000 20.1 49.7 58. 2000 20.1 49.7 58. 2000 20.1 49.7 58. 2000 20.1 49.7 58. 2000 20.1 49.7 58. 2000 20.1 49.7 58. 2000 20.1 49.7 58. 2000 20.1 49.7 72. 2000 21.3 60.7 72. 2000 21.3 61.3 74. 200 21.3 61.3 74. 200 21.3 61.3 74. 200 21.3 61.3 74. 200 21.3 61.3 74.	56.0	.0 51.	51.6	6 9	.6 51	-	916 9	91.6	51.6	21.6	
18000 18.7 43.9 51. 18000 18.7 43.9 51. 18000 18.7 43.9 51. 18000 20.0 47.7 55. 18000 20.0 47.7 55. 18000 20.0 47.7 55. 18000 20.0 49.0 57. 18000 20.0 49.0 57. 18000 20.0 49.0 57. 18000 20.0 49.0 57. 18000 20.0 49.0 57. 18000 20.0 49.0 57. 18000 20.0 49.0 57. 18000 20.0 49.0 57. 18000 20.0 49.0 57. 18000 20.0 49.0 57. 18000 20.0 49.0 57. 18000 20.0 49.0 57. 18000 20.0 49.0 57. 18000 20.0 49.0 49.0 51. 18000 20.0 49.0 49.0 51. 18000 20.0 49.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 47. 18000 20.0 40.0 40. 18000 20.0 40.0	.0 56	8.1 5	8	6.7	.7 5	58.	58.		2		58.7
1800 18.7 43.9 51. 1800 18.7 43.9 51. 1800 20.0 47.7 55. 1800 20.0 47.7 55. 1800 20.0 47.7 55. 1800 20.0 47.7 55. 1800 20.0 47.7 56. 1800 20.1 49.7 58. 1800 20.1 49.7 58. 1800 20.1 49.7 58. 1800 20.1 56.2 69. 1800 21.3 50.7 72. 1800 21.3 50.7 72. 1800 21.3 50.7 72. 1800 21.3 51.3 74. 1800 21.3 51.3 74. 1800 21.3 51.3 74. 1800 21.3 51.3 74. 1800 21.3 51.3 74. 1800 21.3 51.3 74. 1800 21.3 51.3 74. 1800 21.3 51.3 74. 1800 21.3 51.3 74.	-	58.7 58.7	59.4	9.4 5	.65 50	•	7.65 7	29.4	50.4	29.4	56.4
13000 13.7 43.9 51. 10000 19.4 47.1 54. 10000 20.0 47.7 55. 1000 20.0 49.0 57. 1000 20.7 49.7 58. 1000 20.7 49.7 58. 1000 20.7 54.2 63. 1100 20.7 72. 1100 20.7 72.	.0 56.	.7	59.4	59.4 59	.4.5	4 59.	5		•	29.4	29.4
10000 19.4 47.1 54.0000 20.000 47.7 55.0000 20.0 47.7 55.000 20.0 49.0 57.0 55.0 55.0 55.0 55.0 55.0 55.0 55	.0 56.	0	59.4	.4.5	.4 59		29	39.4	29.4		29.4
10000 19.4 47.1 54. 8000 20.0 47.7 55. 8000 20.0 49.0 57. 8000 20.0 49.0 57. 8000 20.1 49.0 57. 8000 20.1 49.0 57. 8000 20.1 49.0 57. 8000 20.1 49.0 57. 8000 20.1 49.0 57. 8000 20.1 56.1 66. 8000 21.3 60.7 72. 8000 21.3 60.7 72. 8000 21.3 61.3 73. 800 21.3 61.3 74. 800 21.3 61.3 74. 800 21.3 61.3 74. 800 21.3 61.3 74.		58.7 58.7	59.4	59.4 59	4.	4 59.	4 88.4	29.4	29.4	29.4	59.4
20.0 47.7 55. 8000 20.0 49.0 57. 8000 20.0 49.0 57. 8000 20.1 49.0 57. 8000 20.1 49.0 57. 8000 20.1 49.0 57. 8000 20.1 49.0 58. 8000 20.1 49.0 57. 8000 20.1 49.0 57. 8000 20.1 49.0 58. 8000 20.1 49.0 58. 8000 20.1 49.0 58. 8000 20.1 49.0 58. 8000 20.1 49.0 58. 8000 20.1 49.0 58. 8000 20.1 49.0 57. 8000 20.1 49.0 58. 8000 20.1 49.0 40. 8000 20.1 49.0 40. 8000 20.1 49.0 40. 8000 20.1 49.0 40. 8000 20.1 49.0 40. 8000 20.1 49.0 40. 8000 20.1 49.0 40. 8000 20.1 49.0 40. 8000 20.1 49.0 40. 8000 20.1 49.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 40.0 40. 8000 20.1 4		. 40 6		2.5		2 65.	69.	2.60	3	-	2.59
20.00 20.0 49.0 57. 5000 20.0 49.0 57. 5000 20.7 49.7 58. 5000 20.7 49.7 58. 5000 20.7 49.7 58. 500 20.7 49.7 58. 500 20.7 49.7 58. 500 20.7 56.1 56. 500 21.3 59.4 70. 500 21.3 50.7 72. 500 21.3 50.7 72. 500 21.3 51.3 74. 500 21.3 51.3 74. 500 21.3 51.3 74.	.5 63.	65.9 65.8	6.99	6.5	.5 6	5 66.	•	66.5	•	.5	66.5
20.0 49.0 57. 5000 20.7 49.7 58. 4500 20.7 49.7 58. 2500 20.7 56.1 56.1 2500 21.3 59.4 70. 2500 21.3 59.4 70. 2500 21.3 50.7 72. 2500 21.3 50.7 72. 2500 21.3 50.7 72. 2500 21.3 51.3 74. 2500 21.3 51.3 74. 2500 21.3 51.3 74. 2500 21.3 51.3 74. 2500 21.3 51.3 74. 2500 21.3 51.3 74.		4.80 4.89		0.6	000	69 0	69	0.60	0	0.69	0.69
2000 20.7 49.7 58. 4500 20.7 49.7 58. 4500 20.7 56.2 63. 20.0 20.7 56.1 56.2 20.0 21.3 56.1 56.2 20.0 21.3 50.7 72. 20.0 21.3 50.7 72. 20.0 21.3 51.3 74. 20.0 21.3 51.3 74. 20.0 21.3 51.3 74. 20.0 21.3 51.3 74. 20.0 21.3 51.3 74. 20.0 21.3 51.3 74. 20.0 21.3 51.3 74.	*	4.89 4.89	0.69	69.0 69	0	69 0		8	0.69	0.69	0.69
2000 20.7 49.7 58. 4500 20.7 51.0 50. 20.0 20.7 54.2 53. 20.0 20.7 54.2 53. 20.0 20.3 56.1 56. 20.0 20.3 50.7 72. 20.0 20.3 50.7 72. 20.0 20.3 50.7 72. 20.0 20.3 50.3 74. 20.0 20.3 50.3 74. 20.0 20.3 50.3 74. 20.0 20.3 50.3 74. 20.0 20.3 50.3 74.		.69 0.		9.7 6	.76	7 69.	69				69.7
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2500 21.3 56.1 56.2 53.000 21.3 56.1 56.1 56.1 56.1 56.1 56.1 56.1 56.1	11.	.41 2.		00	.8 74	8 74.	14.		3		14.8
3500 21.3 56.1 56. 2500 21.3 59.4 70. 2500 21.3 50.7 72. 1500 21.3 50.7 72. 1000 21.3 50.7 72. 21.3 50.7 72. 21.3 50.7 72. 21.3 50.7 72. 21.3 50.7 72. 21.3 50.7 72. 21.3 51.3 74. 200 21.3 51.3 74. 200 21.3 51.3 74.	3 74.		1.8	8.1	.17	1 78.	8	78.1	8	8	78.1
2500 21.3 59.4 70. 2500 21.3 60.0 71. 1500 21.3 60.7 72. 1000 21.3 60.7 72. 200 21.3 60.7 72. 200 21.3 61.3 74. 200 21.3 61.3 74. 200 21.3 61.3 74. 200 21.3 61.3 74. 200 21.3 61.3 74. 200 21.3 61.3 74.	5 77.	.08 /.	1.3	81.3 81	.3 81	3 81.	18	:	81.3	81.3	81.3
2500 21.3 60.0 71. 1800 21.3 60.7 72. 1500 21.3 60.7 72. 1000 21.3 60.7 72. 1000 21.3 60.7 72. 1000 21.3 60.7 72. 1000 21.3 61.3 74. 1000 21.3 61.3 74. 1000 21.3 61.3 74.	70.3 83.2	87.1 87.1		7.7		7 87.	87.	1.	-	1.	87.7
20.00 21.3 60.7 72. 1300 21.3 60.7 72. 1200 21.3 60.7 72. 1000 21.3 60.7 72. 1000 21.3 60.7 72. 1000 21.3 61.3 74. 1000 21.3 61.3 74. 1000 21.3 61.3 74. 1000 21.3 61.3 74.	. 88	4.1.6	-	9.1	6 9.	6 91.	6	91.6			9116
1200 21.3 60.7 72. 1200 21.3 60.7 72. 1200 21.3 60.7 72. 1200 21.3 60.7 72. 1200 21.3 61.3 74. 1200 21.3 61.3 74. 1200 21.3 61.3 74. 1200 21.3 61.3 74. 1200 21.3 61.3 74.	•	-	92.3	2.3 9	17	3 92.	0	2	92.3	5	95.3
1200 21.3 60.7 72. 1200 21.3 60.7 72. 1000 21.3 60.7 72. 1000 21.3 60.3 74. 1000 21.3 61.3 74. 100 21.3 61.3 74. 100 21.3 61.3 74. 100 21.3 61.3 74.	-	1.0 92.		6 6.	2.9 92.	6 92.	.26		2		65.6
1300 21.3 50.7 72. 1800 21.3 50.7 72. 1800 21.3 50.3 73. 1800 21.3 51.3 74. 1800 21.3 51.3 74. 1800 21.3 51.3 74. 1800 21.3 51.3 74.	72.9 87.7	_	95.5	5.5 9	50	5 95.	5 95.3	95.5		2	95.5
21.3 60.7 72. 800 21.3 60.7 72. 800 21.3 61.3 73. 800 21.3 61.3 74. 800 21.3 61.3 74. 800 21.3 61.3 74. 800 21.3 61.3 74. 800 21.3 61.3 74.	. 87		95.5	5.5		5 95.			95.5	5.5	95.5
21.3 61.3 73. 20. 21.3 61.3 74. 20. 21.3 61.3 74. 20. 21.3 61.3 74. 20. 21.3 61.3 74. 20. 21.3 61.3 74.	5.9	5.9		٠.	7.	1 96.	1 96.1		96.1	-	1.96
21.3 61.3 74. 200 21.3 61.3 74. 200 21.3 61.3 74. 200 21.3 61.3 74. 21.3 61.3 74. 21.3 61.3 74.	2.9 8	2.9 95.	96.1	96.1.96	.1 96.	1 96.		1 06	1.96	1.96	1 . 96
200 21.3 61.3 74. 200 21.3 61.3 74. 200 21.3 61.3 74. 200 21.3 61.3 74.	3.6	4.8			.19	_		98.1	-	1.86	98.1
500 21.3 61.3 74. 500 21.3 61.3 74. 500 21.3 61.3 74.	4.2 89.	5.5 98.		86 1.86	6 4.	7 98.		2	8.7	8	98.7
300 21.3 61.3 74. 300 21.3 61.3 74.	co.	96.1 98.7	4.66	*	0 5.	. 66 4	4.66 4	4.66	4.66	•	40.66
300 21.3 61.3 74.	89.	6 11.9	4.66	66 7.66	5 5.	66 9	.66		\$ 66		7.66
300 21.3 61.3 74.	2	96.1 98.7	4.66	4.	4.	•	-		•	4.66	4.66
21 2 4: 2 76	33	6.1	100.001	0	.010	0010	100		0	0	00.00
200 611.5 01.5	0	96.1.96	100001	0	.0010.	0010	100	00.00	0	00.00	0000
100 21.3 51.3 74.	68 8	6 1 9	100001	10	010	0010	100		0	0	00.00
.3 61.3 74.	74.8 89.7	96.1 98.1	100001	00.000	.0070	0100	0100.0	100.00	00.00	00.00	000

TOTAL NUMBER OF OBSERVATIONS

155

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DIRNAVOCEANMET SMOS

14793

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

14793

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0

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73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

19 100

CEILING																
(MET)	2	4 Al	\$ 41	7	1 3	2 2%	2.4	VI 72	71	-	× 11	*	Z AI	2 5/16	VI 34	٨١
NO CEILING		4001	51.6	58.1	58.7	39.4	0.09	60.09	0.09	0.09	0.09	0.09	90.0	0.09	0.09	.09
≥ 20000	~	44.5	56.1	65.0	65.2	65.8	60.9	66.3	56.5	666.5	66.5	66.5	66.5	66.5	66.5	99
	-	44.5	56.1	62.6	65.2	65.8	6099	60.5		9	66.5		60.5	66.5	699	99
16000		44.5	56.1	62.6	65.2	65.8	6009	60.9	66.5	66.9	66.5	66.5	66.5	66.5	66.5	99
		44.5	56.1	63.2		66.5	67.1		67.1	67.1	67.1	67.1	67.1	67.1	•	67.
12000	*	46.5	58.1	65.8	58.4	0.69	1.69	6	69.7	6	1.69	69.7	69.7	69.7	69.7	69
	-	48.4	61.3	71.6				0		9				9		18.
900	*	4.84	61.3	71.6	75.5	0	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	•	16.
1			65.8	77.4	-	2.		3	4		83.2	83.2				83.
141			65.8	78.1	82.6	m	83.9	83.9	83.9	3	=		3	83.9		83.
1			6009	78.7	3	-	*							4		34.
800		53.6	67.1	10.4	83.9	84.5	85.2	~		85.2		85.2				85.
1	-		67.7	80.0	3		5	5	85.8	5	5	3.			85.8	85.
141	-		70.3	83.2	87.7	60			6	0		90.3	0	0	0	90
	0		70.3	63.2	87.1		6.06	-	-		-		:	-	91.6	91.
3000	0		71.6	85.2	91.0	2	-	3	34.5	;	;	;		*	;	34.
	0		71.6	86.5		34.2		1.96	96.1	9	96.0		0	96.8	96.8	96
7000			71.6	86.5		*	5	1.96				.9	;	9	9	96
	10		71.6			2.76			96.1		96.8	8.96	0	96.8	96.8	96
8	0		72.3	87.1		95.5	9	97.4		98.1		98.1	8	98.1	98.1	98
	-	57.4	72.3			45.5	96.8		0	98.1	1.86	1.86	œ	98.1	1.86	
8	-	57.4	72.3	87.1	2.46	96.1	4.46		98.1			98.7		98.7	1.36	96
98	3	37.4	72.3	87.1	4.	1.96		98.	98.1	98.7	1.86	48.7	98.7	98.7	48.7	98.
8		57.4	72.3	87.1	94.2	96.1	4.16	98.1	1.86	7.86	98.7	98.7		98.7	98.7	98
	0	57.4	72.3	8	2.46	1.96		98.1	98.1	98.7	98.7	98.7		98.7	98.7	86
8	0	58.1	72.9	87.7		96.8	98.1	98.7	7.86		4.66	4.66		4.66	4.66	66
	0	58.1	4.5	87.7	8.56	96.8	1.86	98.7	98.7		4.66	4.66		40.66	4.66	66
141	0	*		87.7	8.46	96.8	98.1		98.7		4.66		4.66	4.66	4.66	
1	0			68.4	95.5	3.16	98.7		46.6	0000	0.001	0.00	0.001	100.0	00001	00
8	20.0	58.1	73.6	88.4	6.56	4.16	98.7		99.4	0	100.0		0	100.0	0000	00
801	5		13.6	88.4	62.5	3.16	98.7	\$ 66	4.66	0.0	100.0	0000	100.0	100.0	0000	00
		-	-													

TOTAL NUMBER OF OBSERVATIONS

155

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

22 JUL ...

1961

	AI	590		99			69		72.	78.	81.		85.	85.	89.	89.	93.				*					98.	86	66			00	00	00
	N N		64.5		;	0	69.7	-	72.9					85.8	89.0	0	93.6	1	93.6	10	8.46	95.5	1.86	1.86	1.86	1.86	48.7	4.66	4.66		0000	0000	00.00
	2 5/16	29.4	64.5	66.5	66.5	66.5	1.69		72.9	78.7	81.3	*	85.2	85.8	0.68		93.6	93.6	93.6	93.6	4.8	5.5	7	3.	-	98.1	98.7	4.66	4.66	0000	ċ	00.00	00.00
	Z Al	5	64.5		9	6	1.69		72.9	10.1			85.2		89.0		93.6				94.8			1.86	98.1		28.1	4.66	4.66	0000	0		100.001
	* Al		64.5		66.3		69.7	•	72.9	80			2	3	0	6	93.6		3	-	8.46		00	00	98.1		28.1	\$ 66	4.66	0.001	0.001	0	0.001
	Al Al				66.5	0	1.69	:	72.9	00		;	3	3	89.0	6				3				1.86		1.86	68.7	4.66	4.66		0.001	00001	0.001
ES	- AI		64.5	66.3	66.99		69.7		72.9	78.7	61.3		85.2		88.4	8	2	2	65.6		34.5		4.16	4.66	97.4	97.4	4.16	98.1	98.1	98.7	98.7	98.7	98.7
VISIBILITY (STATUTE MILES)	71 71	59.4		999	66.5		69.7	-	2	8	81.3	3	84.5	2	87.7	-	92.3	2	2.		93.6			8.96		96.8		4.16	97.4	98.1	98.1		98.1
IBILITY (ST	V 1%		64.5	•	60.9		69.7	71.6	72.9	78.7	81.3	3.	84.5	85.2	87.7	87.7	85.3		92.3	85.3	•		96.8				96.8	4.76	4.26	98.1	98.1	98.1	98.1
VIS	7	6	*		66.5		69.7		72.9	83	-		84.3	5	87.7				2	2.	93.6			24.8	*		94.8		3		96.1	96.1	96.1
	1 2%		63.5	2.59			68.4	69	71.0	16.8	78.1	80.1	81.3	-				4.80			2.68	89.1			•		91.0	91.6	91.6	92.3	92.3	92.3	92.3
	۲) اد	57.4	61.9	63.9	63.9	63.9	67.1	68.4		14.8	76.1		19.4		81.9	6118	86.5			86.5	87.1	87.1		88.4		88.4		89.0		89.7		89.7	89.7
	4	54.6	59.4	60.1	60.7	60.1	63.9	65.2	65.2	1.69	71.0	73.6	74.2	8.41	76.1	1.97	78.7	18.1	78.7	78.7	70.4	4.66	80.0	0.08	80.0	80.0	80.0	80.0	80.0	80.7	80.7	80.7	80.7
	41			;	;			6	6			•	67.1		0.69		:		•		72.3		72.3		72.9	72.9	72.9	72.9	72.9	6.21	72.9	6.21	72.9
	۰ ۱۸										54.8			58.1	29.4	29.4			60.7		61.3	01.3			61.3		61.3	61.3	61.3	61.3	61.3	-	01.3
	2	5		9	9	5	27.1			5	29.7		0	:	31.0	:	31.0	-	31.0	31.0	-	31.0	-		:	31.0	31.0	31.0	31.0	31.0	31.0	21.0	31.0
CEILING		NO CEILING	¥ 20000		¥ 16000		2 12000		000		7000		2000		000		300		7000		180		1000		8		8		004		30		٥

TOTAL NUMBER OF OBSERVATIONS

155

14793

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CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

14793

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL HOUR LEST 100

CEILING																
(PRET)	2	AI	37	7	21	≥ 2%	1 2 2	¥1 ¥	VI VI	-	% Al	*	Z.	2 5/16	M AI	N N
		39.9	46.	50.1	52.3	53.5	54.4	55.2	55.5	55.5	55.1	2	55.7	55.7	55.7	55.
≥ 20000		45.9		5	1.	6		0	0	1.		-	-	:	-	61.
		43.2		55.4		6	•	-	-	•	6.19	-	-	6119	-	61.
7 16000		43.2		55.4	58.5	6	0	-	:	-	-	61.9	-	-	6119	61.
		43.3	1	58.7	58.4	6	0	-:	-	2	2.	2.	7	2.	2.	
12000		64.3		57.2	0.09		62.4			63.7	3	63.9		63.9		64.
		46.5	54.	1.09	3	2.50		-		00		80				68.
900	21.3	46.7		61.0	64.3	65.8	67.1	61.9		9.89		68.7	68.7		68.7	68.
1		49.0	56.	*	67.7	4 69	0	-:	-	2	2	2.		2.		72.
141		66.3	57.	04.4	66.39		71.5	2	2							
1		20.0	58.	0		-4	2		*					4		14.
2000		50.7	59.		70.7	2		3		9				76.5		76.
1		51.2	59.	67.3		180	3	0	9					1		
900		53.1	61.	1.69	74.4		78.2	79.3	6	80.2	80.5	80.5		0		80.
1		53.8	62.	C		-	6	0	0	-						82.
3000		55.9	65	74.0	6	81.8			85.7	0						87.
1		56.4	65	75.1		3	200	·								89.
7000		56.7	.99	75.7	2		.9		8	89.4		89.7		89.8		90.
1		56.7	.99	75.8			-	-		6		0			1006	900
200		57.1	67	77.0	84.0	86.6	0		0	92.0		•		92.5		92.
1		57.4	57.		*			-		3		-		3		93.
1 1		57.6	67	78.0	85.2	00	-	93.2	3	. 4				5	95.3	95.
		57.6	1	73.1	85.2	000		93.4	93.6	8.76		95.2				95.
8	23.2	58.0		•		89.5	95.6	3	;				96.8	9		97.
1		58.0	68.	78.8	0	1.50				. 9		6.96				
8		38.1		19.0	0	1.06	3	95.6	5	-			-		98.1	98.
1		58.1	1	0.61	85.6		93.0		95.9	61.3	6.16	6.16		98.3	98.5	98.
8		58.1	68.	19.0	86.8	80.2		62.6	9		8	98.1		8	7.86	98.
		58.1	1	79.2	87.1	9006	1.56	6096	9	0.86	98.6	98.6			66.3	66
38	23.2	58.1		79.5	87.1		1.56		6.7		186	48.7	6	4.66	99.66	66
8		58.1)	7.61	87.1	9006	1.56	6.96	1.96	1.86	1.86	1.86	33.6	7.66		66
				-												

TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLGH GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

10 AUG

CEILING							VISIA	BILITY (STA	VISIBILITY (STATUTE MILES)	(\$)						
(FEET)	2	٨١	8 1	AI AI	AI	2 2%	2 4	7 1%	71 71	-	% Al	*	Z AI	≥ 5/16	N N	٨١
NO CEILING	18.7	35.5		47.1	6.25	26.1		58.7	58.7	0.00	0.09	6	6	0	0.09	60.0
× 20000	19.4	37.4		50.3	1.95	0.09	63.5	63.6		63.8	65.8	65.8	3	65.8	65.8	65.8
	19.4	37.4		50.3	56.1	0.09	3	2			3	3.		5	3	65.8
14000	19.4	37.4		50.3	56.1	0.09	63.2	63.6		65.8		65.8	2	65.8	65.8	65.8
	19.4	37.4	1	51.0	96.8	00		6.49		66.5	3		6	66.5	66.5	66.5
2 12000	19.4	37.4		51.0	56.8	61,3		65.2	65.2	67.1	67.1	67.1	67.1	-	67.1	67.1
1		41.3			619	6.90	0					2		12.9	•	72.9
000	20.7	41.3		55.5	6119	66.5	70.3	71.0	71.0	72.9			2		72.9	72.9
1	-	44.5	1	29.4		11.6	30								78.7	78.
1 1 2 8 8 9		45.2		0.09	67.7	72.3	76.1	77.4	17.4	10.4	6	19.4	6	79.4	79.4	19.4
1		45.8		60.1		12.9		8			0		0	0	6	80.0
2006		47.7					78.7	80.0		81.9	-		81.9	-	81.9	81.5
1		48.4		63.9	72.3	16.8	80.7	81.9	6.18			83.9	3.	83.9	83.9	83.9
1 11		49.7			73.6		83.2	84.5	84.5		86.5	86.5	86.5	•	86.5	86.5
1		50.3	34	9		0				87.7					87.7	
3000		51.6		67.7			86.5	87.7	•	0		89.7	89.7			89.7
1		51.6	26		16.8	3	87.7				0.16			:		
7000		51.6		0.69	-	83.9	6		80.3	85.3		92.3	7	3	5	92.3
		51.6	26	0.69		2		60.3		92.3		7		2.		
1500	23.5	55.9			4.64	33.00		•	95.9	;	94.8			;	;	94.6
		55.9			6	85.8	•	6.36	6.26	. 4	•	8.96	*			
1000		53.6	1	71.6	0		-		3	95.5	62.5	95.5	95.5	95.5	95.5	95.5
		53.6				6.99	•		93.6	2.	62.5	35.5		2	2	95.
80		53.6		71.6	0	86.5	-		3	96.1	1.96	1.96	•		96.1	96
		53.6	1	71.6	80.0	6.08	9.16			1096	1.96	1.96		•	1.96	96
8		53.6		71.6	0	87.1	3	8.46	*	97.4	97.4	4.16		97.4	91.4	97.7
		53.6	1	71.6	1008	87.1			;	3.16	3.16	41.4	1.86			
8		23.6		71.6	80.7	87.1	5	94.8	8.46	97.4		4.16		98.1	98.1	98.
88	23.2	53.6	1	71.0		87.1	93.6	95.5	5	1.86	1.86	1.86	98.7	98.7	786	98.
1		23.0	1	0.1			300	2000	:	1.00	1000	1 80				
80	23.2	U 10	58.7	71.0	80.7	67.1	93.0	95.5	95.5	98.7	98.7	98.7	000	100	000	
1	·I		•				١				1	1	1			

155

TOTAL NUMBER OF OBSERVATIONS

100

14793

CEILING VERSUS VISIBILITY

WILLOW GROVE, PENNSYLVANIA

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

73-77

04 HOURS (1 8 T . AUG

2

CEILING							VIS	IBILITY (ST.	VISIBILITY (STATUTE MILES)	ES)						
(FEET)	2	o Al	8 41	1	AI AI	> 2%	2.2	¥1 ¥1	¥1 ×1	-	*	*	2.	≥ 5/16	AI	O AI
NO CEILING	00	29.0	32.	34.8	0	37.4	2.		45.2	9.	47.1	1.1.	10/10	1.	47.1	1.1.
2000	21.		36.				0	20						0 0		3001
16000	21.3	33.6		0	43.2	44.3	200	52.3	52.9	54.0	56.1	56.1	56.1	56.1	56.1	56.1
			37.	41.3	3.		:	2.		3		9	0	9		56.8
> 12000			37.	41.3	3		-	53.6		.0		-	1		-	57.4
1			40.	44.5	*		-			-		2.69		3	3	63.2
0006			40	44.5	8	0	-	•		-	•		3	3	•	63.2
ł			43.	47.7	-		0	3.		9						67.7
1 7000				47.7	-	3	0	3		.9			-	-	1.	67.7
1			43.	47.7	2.		-	3					8		8	68.4
2006			43.	0.64	3	3				6	70.3		0	0	0	70.3
1			45.	51.0	3	-	5	·		-	2.		7	2.	2.	72.3
1 1			46.	52.3	-		80	-		;	0		9		•	76.1
1			47.	52.9	0	0	6	2.		0	-		1	-	-	77.4
308			50.	56.8	2	3				0	-		-	-	2	82.6
1		43.9	51.	57.4	3.	5	3			-			3	3	3	83.9
1 7 1		63.9	51.	58.7	64.5	9		19.4			85.2			3.	3	85.8
		43.9	51.		*		3	6		100	5		5	2		85.8
141		43.9	51.	58.7	\$	0		0		50	•		1	-	-	87.7
-		45.2	52.		5			82.6		-			6	6	89.7	89.7
1 1		45.2	53.	60.7	1.	O		83.9						-	:	91.6
		45.2	53.					83.9					-	-		91.6
8		45.2	53.		67.1		6			6	0		-	-	5	92,3
			53.		67.1		0			6	-		7	2.	2.	92.9
8			53.	60.7	67.1	6	0	85.2		0	:			2		93.6
1			53.	60.7	67.1		0			0	:		3		;	94.2
141		45.2		60.7	67.1	70.3		85.8		91.0	92.3	92.3	34.2		8.46	8.46
			53.	1.09	67.7		-			-	2					95.5
141		45.2	53.	60.7	67.7	71.0	81.3	86.5		-	2.		95.5	5		96.8
		3	1	1.09	67.1	11.0		86.5		9116	93.6	93.6	1.96	1.96	1.86	98.1
o I AI				60.7	67.7	71.0	81.3	86.5	87.1	91.6	-	93.6	1.96	1.96	98.7	00.00

TOTAL NUMBER OF OBSERVATIONS

155

1915

DIRNAVOCEANMET SMOS

0

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

73-7

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

AUG MONTH O7

NO CRUING 13-0 2-7-1 29-7 35-1 39-4 41-3 45-6 49-0 49-7 91-0 9	CEILING							VISI	VISIBILITY (STATUTE MILES)	ATUTE MIL	ES						
CRITING 13-0 27-1 29-7 31-0 38-1 41-3 43-9 50-3 54-2 54-8 56-1 58-1 58-1 58-1 58-1 58-1 58-1 58-1 58	(FEET)		1	1		1		1			1	The state of		135			0 Al
13.6 27.7 31.0 38.1 41.3 43.9 50.2 54.2 54.8 56.1 58.1 58.1 58.1 58.2 56.2 56.1 58.1 58.1 58.1 43.9 50.3 54.2 54.8 56.1 58.1 58.1 58.1 58.1 58.1 58.2 56.2 56.2 56.1 58.2 58.2 56.1 56.1 56.1 56.2 <th< td=""><td>NO CEILING</td><td>13.6</td><td>27.1</td><td></td><td></td><td></td><td>-</td><td>5</td><td>6</td><td>6</td><td></td><td>-</td><td>_</td><td>:</td><td>-</td><td>=</td><td>51.6</td></th<>	NO CEILING	13.6	27.1				-	5	6	6		-	_	:	-	=	51.6
13.00 13.0 27.7 31.0 38.1 41.3 43.9 50.3 54.2 54.8 56.1 58.1 58.1 58.1 58.1 58.1 58.1 58.1 58	> 20000	13.6	27.7			-	3	0	•	3	•	0	-		8		
13.00 13.0 27.7 31.0 38.1 41.3 43.9 50.3 54.2 54.8 56.1 58.1		13.6	27.7			:	3	0		*	9		8			8	29.4
13.6 27.7 31.0 38.1 41.3 43.9 50.3 54.2 54.6 56.1 58.1 58.1 58.1 58.1 58.1 58.1 58.1 58		13.6	27.7		20	:				;	•	8	8	00		8	29.4
14.2 29.0 32.3 40.0 43.9 46.5 52.9 57.4 58.1 59.4 61.3 61.3 61.3 61.3 61.3 61.9 61.0000 14.8 31.0 34.2 41.9 46.5 49.0 56.8 61.9 62.6 63.9 65.6 65.9 65.5 65.5 65.5 65.5 65.5 65		13.6	27.7		00	-	3	0			9	8	œ	0		8	59.4
14.6 31.0 34.2 41.9 46.0 49.0 56.9 61.9 62.6 63.2 64.5 66.5 66.5 66.5 66.5 67.1 8000 14.6 31.0 34.8 42.6 47.1 49.7 57.4 62.6 63.2 64.5 66.5 66.5 66.5 66.5 67.1 8000 14.8 32.9 36.1 43.9 49.7 52.9 61.3 66.5 67.1 68.4 71.0 71.0 71.0 71.0 71.0 71.0 71.0 71.0		14.2	29.0		0		9	2	-	œ		:	:	-	-	:	62.6
14.6 31.0 34.8 42.6 47.1 49.7 57.4 62.6 63.2 64.5 66.5 66.5 66.5 66.5 66.5 67.1 10. 11.6 11.0 71.0 71.0 71.0 71.0 71.0 71.0 71.0	1	14.8	31.0		-				:	2.	3.	3	3	0	5	0	67.
14.8 32.3 36.1 43.9 49.7 52.9 61.3 66.5 67.1 68.4 71.0 71.0 71.0 71.0 71.0 71.0 71.0 71.0		14.8	31.0		2		6	-	2.	6	*	9		.0	•	-	67.7
14.8 32.3 36.1 43.9 49.7 52.9 61.3 66.5 67.1 68.4 71.0 71.0 71.0 71.0 71.0 71.0 71.0 71.0	1	14.8	32.3				2	-	9		50	1	-	:			72.3
14.8 32.9 36.8 44.5 50.2 55.0 67.7 68.4 70.3 72.9 <th< td=""><td></td><td>14.8</td><td>32.3</td><td></td><td>•</td><td>0</td><td>2</td><td>-</td><td></td><td>-</td><td>8</td><td>-</td><td>-</td><td>-</td><td></td><td></td><td>72.3</td></th<>		14.8	32.3		•	0	2	-		-	8	-	-	-			72.3
3500 14.8 32.9 36.8 45.2 51.0 54.2 62.6 67.7 63.4 70.3 72.9 72.9 72.9 72.9 73.0 74.2 45.2 46.8 35.6 37.4 47.1 53.6 55.8 65.2 70.3 71.0 73.0 73.5 73.5 73.5 73.5 75.5 75.5 75.5 75.1 35.0 15.8 33.6 37.4 47.1 53.6 55.8 65.8 71.0 71.0 72.9 75.5 75.5 75.5 75.5 75.5 75.1 30.0 15.5 34.2 38.1 47.7 54.2 58.1 65.8 71.0 71.0 71.0 73.6 77.1 76.8 76.8 76.8 76.8 76.8 76.8 76.8 76.8		14.8	32.9					-	-		0	-		:			72.9
4800 14.8 33.6 37.4 47.1 53.6 54.8 65.2 70.3 71.0 72.9 75.5 75.5 75.5 75.5 76.1 35.0 14.8 33.6 37.4 47.1 53.6 55.8 65.2 70.3 71.0 72.9 75.5 75.5 75.5 75.5 75.5 76.1 35.0 14.8 33.6 37.4 47.1 53.6 55.8 65.8 71.0 72.9 74.2 76.1 76.1 76.1 76.1 76.1 76.1 30.0 15.5 34.2 34.2 34.1 47.7 54.2 37.4 66.5 77.4 72.9 72.3 74.2 76.6 76.8 76.8 76.8 76.8 77.4 77.4 75.5 34.2 34.2 34.1 47.7 54.2 37.4 66.5 77.4 72.9 75.5 78.1 80.7 80.7 80.7 80.7 81.3 180.0 15.5 34.2 38.7 48.4 55.5 60.0 69.7 74.8 75.5 78.1 80.7 80.7 80.7 80.7 81.3 180.0 15.5 34.2 38.7 48.4 56.1 60.7 71.0 75.1 76.8 80.0 82.0 82.6 83.2 83.2 83.2 83.9 87.5 87.1 80.7 80.7 80.7 80.7 80.3 87.2 83.2 83.9 83.9 83.0 83.0 83.2 83.0 83.0 83.0 83.0 83.0 83.0 83.0 83.0		14.8	32.9		50	-	;	2	1.		0	3		2			74.2
14.8 33.6 37.4 47.1 53.6 56.8 71.0 72.9 75.5 75.5 75.5 75.5 75.5 76.1 10.1 10.1 10.1 10.8 33.0 14.8 33.6 37.4 47.1 53.6 56.8 71.0 71.0 73.6 76.1 76.1 76.1 76.1 76.1 76.1 76.1 76	1	14.8	32.9		2	-	*	3	8	6	-			3.			
15.5 34.2 36.1 47.7 54.2 57.4 66.5 71.6 72.3 74.2 76.8 76.8 76.8 76.8 77.4 77.4 15.5 34.2 36.1 47.7 54.2 57.4 66.5 71.6 72.3 74.2 76.8 76.8 76.8 76.8 76.8 77.4 17.4 17.4 17.5 5 34.2 36.1 47.7 54.2 57.4 66.5 71.6 72.3 74.2 76.1 76.7 76.7 76.7 77.4 17.4 17.5 76.1 76.7 76.7 76.7 76.7 77.4 17.4 17.5 76.1 76.7 76.7 76.7 77.4 17.5 76.1 80.7 80.7 80.7 80.7 80.3 81.3 81.3 81.3 84.2 34.2 38.7 48.4 56.8 60.0 69.7 74.8 75.5 78.1 80.7 80.7 80.7 80.7 80.7 81.3 13.0 15.5 34.2 38.7 48.4 56.8 60.0 69.7 77.4 78.1 80.7 80.7 80.7 80.7 80.7 80.7 80.8 15.5 34.8 39.4 49.0 57.4 62.6 73.6 79.4 80.0 83.2 86.5 86.5 87.1 87.1 87.1 87.7 80.0 15.5 34.8 40.0 57.4 62.6 73.6 79.4 80.0 83.2 86.5 86.5 87.1 87.1 87.1 87.7 80.0 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 91.0 80.7 80.0 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 80.0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 83.5 83.5 89.7 94.8 95.5 97.4 97.4 98.1 98.1 98.7 84.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 98.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 94.8 95.5 94.8 90.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 98.8 95.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 98.8 95.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 98.1 98.7 98.1 98.7 98.8 95.5 97.4 99.1 98.7 97.8 95.5 97.4 97.4 98.7 97.5 98.1 98.7 97.8 95.5 97.4 97.4 98.7 97.5 97.5 97.5 97.5 97.5 97.5 97.5 97		14.8	33.6		-	3		5	0	-	2			5			
15.5 34.2 36.1 47.7 54.2 57.4 66.5 71.6 72.3 74.2 76.8 76.8 76.8 76.9 77.9 74.0 15.5 34.2 36.1 47.7 54.2 56.1 67.7 72.9 73.6 76.1 72.7 78.7 78.7 78.7 78.7 78.7 78.7 78.7	1	16.8	33.6				9		1:		-			0			77.4
15.5 34.2 38.7 48.4 55.5 60.0 69.7 74.8 75.5 78.1 80.7 80.7 80.7 80.7 81.3 1800 15.5 34.2 38.7 48.4 55.5 60.0 69.7 74.8 75.5 78.1 80.7 80.7 80.7 80.7 81.3 1800 15.5 34.2 38.7 48.4 55.5 60.0 69.7 74.8 75.5 78.1 80.7 80.7 80.7 80.7 81.3 1800 15.5 34.2 38.7 48.4 56.1 60.7 71.0 75.1 76.8 80.0 82.6 82.6 83.2 83.2 83.9 1000 15.5 34.8 39.4 49.0 57.4 62.6 73.6 77.4 80.0 83.2 86.5 86.5 87.1 87.1 87.7 1000 15.5 34.8 40.0 50.3 58.7 63.9 76.8 83.2 85.5 89.7 89.7 90.3 90.3 91.0 15.5 34.8 40.0 50.3 58.7 63.9 76.8 83.2 83.9 87.7 92.9 92.9 93.6 93.6 94.2 15.5 34.8 40.0 50.3 58.7 63.9 76.8 83.9 84.5 89.0 94.5 96.1 96.1 96.1 96.1 96.1 98.7 01.5 34.8 40.0 50.3 58.7 63.9 76.8 83.9 84.5 89.0 94.5 94.8 95.5 34.8 40.0 50.3 58.7 63.9 76.8 83.9 84.5 89.0 94.2 94.8 95.5 97.4 97.4 98.1 98.7 01.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 01.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 01.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7		15.5	34.2		-	;	-	;	-		3			. 9			78.1
15.5 34.2 38.7 48.4 55.5 60.0 69.7 74.8 75.5 78.1 80.7 80.7 80.7 80.7 81.3 15.5 34.2 38.7 48.4 55.5 60.0 69.7 74.8 75.5 78.1 80.7 80.7 80.7 80.7 81.3 15.5 34.2 38.7 48.4 56.1 0.7 71.0 77.4 78.1 80.0 82.6 82.6 83.2 83.2 83.2 83.9 100.15.5 34.8 39.4 49.0 57.4 62.6 73.6 79.4 80.0 83.2 86.5 86.5 87.1 87.1 87.7 87.7 87.7 87.4 80.0 83.2 86.5 86.5 87.1 87.1 87.7 87.2 87.2 86.5 34.8 40.0 49.7 58.1 63.2 74.8 81.9 85.2 86.5 86.5 87.1 87.1 87.1 87.1 87.1 87.1 87.1 87.1	1	15.5	34.2			*	m	-	2.	3	9						80.0
1300 15.5 34.2 38.7 48.4 55.1 60.7 71.0 75.1 76.8 80.0 82.6 82.6 83.2 83.2 83.9 13.9 13.5 34.2 38.7 48.4 56.1 60.7 71.0 75.1 76.8 80.0 82.6 82.6 83.2 83.2 83.9 13.9 13.9 34.2 38.7 48.4 56.1 60.7 71.0 77.4 78.1 81.3 83.9 83.9 84.5 84.5 84.5 87.1 87.1 87.7 90.0 15.5 34.8 39.4 49.0 57.4 62.6 73.6 79.4 80.0 83.2 86.5 86.5 87.1 87.1 87.1 87.7 90.0 15.5 34.8 40.0 50.3 58.7 56.1 82.6 83.2 86.5 88.4 88.4 88.4 89.0 89.0 89.0 89.0 89.0 91.0 91.0 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 50.0 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 50.0 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 91.6 92.9 92.9 92.9 92.9 92.9 92.9 92.9 92		15.5	34.2		00	10	0	6		3				0			81.9
15.5 34.2 38.7 48.4 56.1 60.7 71.0 76.1 81.3 83.9 82.6 82.6 83.2 83.2 83.9 1200 15.5 34.8 39.4 49.0 57.4 62.6 73.6 79.4 80.0 83.2 86.5 86.5 87.1 87.1 87.7 800 15.5 34.8 39.4 49.0 57.4 62.6 73.6 79.4 80.0 83.2 86.5 86.5 87.1 87.1 87.7 800 15.5 34.8 40.0 49.7 58.1 63.2 74.8 81.3 81.9 85.2 88.4 88.4 89.0 89.0 89.7 700 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 89.7 80.0 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 80.0 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 80.0 15.5 34.8 40.0 50.3 58.7 63.9 76.8 83.2 83.9 87.7 92.9 92.9 93.6 93.6 94.2 92.9 83.6 94.2 92.9 93.6 93.6 94.2 92.9 93.6 93.6 94.2 92.9 93.6 93.6 94.2 92.9 93.6 93.6 94.2 92.9 93.6 93.6 93.6 93.6 93.6 93.6 93.6 93		15.5	34.2		T.	2	0	6		5	8			6	0		81.5
15.5 34.8 39.4 49.0 57.4 62.6 73.6 77.4 78.1 81.3 83.9 83.9 84.5 84.5 85.7 85.7 80.0 15.5 34.8 39.4 49.0 57.4 62.6 73.6 79.4 80.0 83.2 86.5 86.5 87.1 87.1 87.7 80.0 15.5 34.8 39.4 49.0 57.4 62.6 73.6 79.4 80.0 83.2 86.5 86.5 87.1 87.1 87.7 80.0 15.5 34.8 40.0 49.7 58.1 63.2 74.8 81.3 81.9 85.2 88.4 88.4 89.0 89.0 89.7 70.0 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 89.7 80.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 80.0 15.5 34.8 40.0 50.3 58.7 63.9 76.8 83.2 84.5 89.0 94.2 94.8 92.3 92.3 92.3 92.9 93.6 94.2 94.2 94.8 40.0 50.3 58.7 64.5 77.4 83.9 84.5 89.0 94.2 94.8 95.5 97.4 97.4 98.1 98.1 98.7 0.0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 0.0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 0.0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7		15.5	34.2		æ		0	-	9	9	0			3	3	•	84.5
15.5 34.8 39.4 49.0 57.4 62.6 73.6 79.4 80.0 83.2 86.5 86.5 87.1 87.1 87.7 80. 15.5 34.8 39.4 49.0 57.4 62.6 73.6 79.4 80.0 83.2 86.5 86.5 87.1 87.1 87.7 80. 15.5 34.8 40.0 49.7 58.1 63.2 74.8 81.3 81.9 85.2 88.4 88.4 89.0 89.0 89.7 89.7 80.3 90.3 91.0 80.0 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 80.0 15.5 34.8 40.0 50.3 58.7 63.9 76.8 83.2 83.9 87.1 91.6 91.6 92.3 92.3 92.9 81.0 15.5 34.8 40.0 50.3 58.7 63.9 76.8 83.2 83.9 87.7 92.9 92.9 93.6 93.6 93.6 94.2 30.0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 83.9 84.5 89.0 94.2 94.8 95.5 97.4 97.4 98.1 98.1 98.7 0.0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 0.0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 0.0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7	1	15.5	34.2		c	. 9				8	-				*	85.2	85.8
15.5 34.8 39.4 49.0 57.4 62.0 73.6 79.4 60.0 63.2 86.5 86.5 86.5 87.1 87.1 87.1 87.1 87.1 87.0 89.7 89.7 89.0		15.5	34.8		·	-	~		6	0	•		86.5	-	~	87.7	88.4
15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 69.7 5.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 50.0 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 50.0 15.5 34.8 40.0 50.3 58.7 63.9 76.8 83.2 83.9 87.1 91.6 91.6 92.9 92.9 92.9 92.9 92.9 92.9 92.9 92		15.5	34.8		0	-	2.	3.	6	0			0	-			88.4
700 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 60.0 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 86.5 89.7 89.7 90.3 90.3 91.0 60.0 15.5 34.8 40.0 50.3 58.7 63.9 76.8 83.2 83.9 87.1 91.6 91.6 92.3 92.3 92.9 92.9 92.8 40.0 50.3 58.7 63.9 76.8 83.2 83.9 87.7 92.9 92.9 93.6 93.6 94.2 90.0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 83.9 84.5 89.0 94.2 94.8 95.5 97.4 97.4 98.1 98.1 98.7 94.8 95.5 98.1 98.1 98.7 98.8 95.5 94.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.1 98.1 98.7 98.8 95.5 98.8 98.1 98.7 98.8 95.5 98.8 98.1 98.7 98.8 95.5 98.8 98.8 98.7 98.8 98.8 98.8 98.8 98.8		15.5	34.8		6			;	-	-	3		1	6			90.3
200 15.5 34.8 40.0 50.3 58.7 63.9 76.1 82.6 83.2 66.5 89.7 89.7 90.3 90.3 91.0 20.0 15.5 34.8 40.0 50.3 58.7 63.9 76.8 83.2 83.9 87.1 91.6 91.6 92.3 92.3 92.9 92.9 20.9 15.5 34.8 40.0 50.3 58.7 64.5 77.4 83.2 83.9 87.7 92.9 92.9 93.6 93.6 94.2 20.0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 83.9 84.5 89.0 94.2 94.8 96.1 96.1 96.8 10.0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 98.8 10.8 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7	1	15.5	34.8		0	38.7		76.1	7		6	0	6	0	90.3	-	
300 15.5 34.8 40.0 50.3 58.7 63.9 76.8 83.2 83.9 87.7 92.9 92.3 92.3 93.6 94.2 300 15.5 34.8 40.0 50.3 58.7 64.5 77.4 83.9 84.5 89.0 94.2 94.8 96.1 96.1 96.1 96.1 96.2 94.2 94.8 96.1 96.1 96.1 96.1 96.1 96.1 96.1 96.1 96.1 96.1 96.1 96.1 96.1 96.1 98.1 <t< td=""><td></td><td>15.5</td><td>34.8</td><td></td><td>0</td><td>8</td><td></td><td>0</td><td>2</td><td>3</td><td>•</td><td></td><td>0</td><td>0</td><td>0</td><td>=</td><td>91.6</td></t<>		15.5	34.8		0	8		0	2	3	•		0	0	0	=	91.6
15.5 34.8 40.0 50.3 58.7 63.9 76.8 83.2 83.9 87.7 92.9 93.6 93.6 94.2 300 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 97.4 96.1 96.1 100 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 <td< td=""><td>1</td><td>15.5</td><td>34.8</td><td></td><td></td><td></td><td>3</td><td>9</td><td>3.</td><td>3</td><td>-</td><td>-</td><td>:</td><td>7</td><td>2</td><td>2.</td><td>93.6</td></td<>	1	15.5	34.8				3	9	3.	3	-	-	:	7	2	2.	93.6
200 15.5 34.8 40.0 50.3 58.7 64.5 77.4 83.9 84.5 89.0 94.2 94.8 96.1 96.1 96.8 200 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 97.4 97.4 98.1 100 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 98.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7		15.5	34.8		.0	2			3	3	-		2		-	•	
200 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 97.4 97.4 98.1 100 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7		15.5	34.8		0		4.		3	;	0			0	1		97.4
100 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7 0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7		15.5	34.8	•	0		*			2	0		2	-	-	98.1	99.4
0 15.5 34.8 40.0 50.3 58.7 64.5 77.4 84.5 85.2 89.7 94.8 95.5 98.1 98.1 98.7		15.5	34.8	40.0	.0		*	-		5	0		2		Œ	8	0001
		15.5	34.8	40.0	0			-	*	3	0	;	3	-		8	

TOTAL NUMBER OF OBSERVATIONS

155

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DIRNAVOCEANMET SMOS

72.3

71.6

71.6 72.9

71.6

73.6 74.2

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6.7/

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6665 666.5

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6113

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0.68

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83.2

83.2

78.1

7.1

9116

016

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91.0

8.06

90.3

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1.68

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86.5

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85.2

78.1

4.89

80.0

73.6

64.5

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8.46

8.76 8.76

2.46

34.5 2.46

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93.6

93.6

65.3

92.3

61.6 92.3

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91.0

0.16 93.6

0.16

90.3

87.1

90.0

0.3

95.3 93.6

89.7 89.7

81.3

71.0

95.3 97.4

94.8 8.96

8.76

8.46

2.46

8.96

90.8

96.1

1.96

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8.96 8.46

8. 96

9.86

91.0

82.6

72.3

65.3

81.3

11.0

7.86

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0.16

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98.1

1.86 1.86

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11.4

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77.4

16.8

76.8

14.2

74.2

74.2

14.2

74.2 76.1

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

14793

STATION MAME

73-77

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200

10

PERCENTAGE FREQUENCY OF OCCURRENCE	(FROM HOURLY OBSERVATIONS)

VISIBILITY (STATUTE MILES)

\$9.4 66.5 61.3 66.5 71.6 73.6 72.9 29.4 71.6 29.4 72.9 73.6 7.65 66.5 10.3 61.3 66.5 AI 29.4 60.99 10.3 12.9 59.4 59.4 66.5 71.6 73.6 61.3 59.4 59.4 7 7 60.99 59.4 59.4 60.9 70.3 71.6 72.9 61.3 V 1%

39.4

57.4

50.3

43.2

37.4

4.8

VI VI 0009 16000

0.3

44.5

7

2

(FEET)

50.3

43.2

4.8

20000 A

NO CEILING

57.4

50.3

43.2

37.4

4.8

58.7

51.6

44.5

38.1

4.8

12000

1.15

.04

16.8

AI AI

0.09

60.09

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0009

59.4

59.4

59.4

59.4

39.4

9116

21.6 59.4

AI

0.09 6119

39.4 59.4 29.4 59.4

14.2 75.5 73.6 75.5 74.2 73.6 71.6 12.9 61.3 10.3 62.0 65.8 56.5 14.2 66.5 29.4

75.5 8.9/ 1.6 71.6 69.0 73.6 7.41 12.3 65.8 67.1 69.1 67.1 67.1 55.5

72.9 0.09 52.9 61.9 21.6 60.0 61.9 58.7 64.5 58.1 60.1 50.3 51.0 31.6 51.0 52.9 54.2

47.7 42.6 63.9 43.9 43.9 40.7 43.2 44.5 6.8 16.8 6.8 16.8 8.9 8.9 6.8

AI AI

45.8 44.5 8.91 8.91

AI AI

45.8 8.6

56.8 54.2 50.8 47.1 16.8

AI AI

47.1 47.7 17.4 6.9

2000

ALAL

48.4 1.4

88

AI AI

57.4 58.7 58.7 48.4 48.4 4. 17.4

900

AI AI

4.8.4 48.4 7.4 4.1

AI AI

4.8.4 4.8.4 4.8.4 7.4 1.4 4.4

AI AI

0.09 60.09 0.09 0.09 0.09 0.09 0.00 48.4 48.4 17.4 1.6 88 88 88 88 80

AI AI

AI AI

AI AI

TOTAL NUMBER OF OBSERVATIONS

155

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

13

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CEILING							VISIA	VISIBILITY (STATUTE MILES)	NTUTE MILI	ES)						
(FEET)	2	AI	N AI	4	E AI	Y 2%	~	V 1%	VI 74	Ā	% Al	*	× AI	≥ 5/16	¾ Al	٥ ٨١
NO CEILING	13.6	27.1	F .		45.2	2.54	45.2	7.64	0	7.54				45.2	8.64	
≥ 20000	14.2	31.6	1	4 9 . 4	5.	5.	5.	5.	•	5.		•	4.		•	23.
	14.2	31.6		48.4	52.3			55.9	•		52.9	25.9	6.25	•		53.0
1600	14.2	31.6		4.8.4	52.3		5	•	5.	5	•	•	2	52.9	•	53.0
	14.2	31.6	*	48.4	52.3	52.3			2.	52.9	32.9	. 7	7	52.9	3.	53.
12000	14.2	34.2		51.6	56.1	56.1		56.8	•	9	•	56.8			-	57.
	16.1	36.1	48.	56.8	3.	3			*	64.5				4.	•	
8		36.1		57.4	63.9	64.5	65.2		65.2	65.2	65.2	69.2	3	65.2		65.
1		38.1	51.	61.3		6		69.7	6	6	6			69.7		10.
141	16.1	38.1		-	4.89	•			1.69	69.7	6		6	69.7		70.
1	16.1	38.1	51.	61.3	20		6	6	6	6	6	6		6		10
0005	16.8	0.04	53.	3	70.3		72.3	72.3			2		2.	72.3		720
1	16.8	1.05	34.			2	3	3.	3.	3	3.	3.				74.
1 11	16.8	41.9		65.8	72.9	4 .	74.8	14.8	14.8		74.8	74.8	74.8	•	75.5	75.
1	16.8	44.5	90	-			-	:	-		:		:		:	81.
3000		47.1	65.	76.1							9	•		86.5	-	
1	17.4	47.1	65		65.2				87.7			-		87.7	8	88.
1 7 1	17.4	48.4	67	78.7	*	0	-	-	-	-	-			-	:	
1	17.4	48.4	67.	78.7	38.4		-	:	0.16	-	:	-		91.0	-	91.6
1800	17.4	48.4	68	80.7	:	92.9	*	2.46	84.5	2.76	•	;		34.5	94.8	94.
1	17.4	48.4	68.	80.7					94.8	3	4	*			2	
100		48.4	68	80.7	2.	*	8			96.1		96.1		1.96		
	17.4	48.4	0	0		24.5	5		1.96	-0	1.96	1.96		96.1	8.96	96.
8	17.4		9	80.7			•	1.96	•		1.96	1096		96.1		
1	17.4		0	80.7		2.46		1.96		1.96	1.96			96.1	9	
8	17.4		C	81.3		;		97.4	97.4	4.16		4.16				98.
	17.4	1	69	81.9	93.6	6.56		1.86	7.86		1.86	98.7			6	99.
141	17.4		0.69	81.9	93.6		98.1	48.7	48.7	98.7		7.86		99.4	0.001	100
1	17.4	43.4	5	81.9	3	6.56	1.86	1.86	1.86	1.86	1.86	7.86	4.66	4.66	0.00	
7 70	17.4	48.4	69	-	93.6	95.5	1.86	1.86	7.86			1.86		4.66	000	000
8		00	0.69	81.9	93.6	95.5	98.1	98.7	7.86	98.7	98.7	98.7	4.66		•	001
	17.4	48.4	0.69	81.9	93.0	3	98.1	1.86	1.86		1.06	180	77.4	39.4	0000	1000

TOTAL NUMBER OF OBSERVATIONS

155

200

1080

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

14793

YEARS

AUG 16

110

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OBSERVATIONS
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A HOURLY
POM F
33)

CEILING							VISIA	BILITY (STA	VISIBILITY (STATUTE MILES)	S						
(FEET)	2 1	o Al	8 41	7	E AI	≥ 2%	Z A	¥1 ¥	71 71	-	% Al	* Al	Z AI	≥ 5/16	AI AI	0 11
NO CEILING	2.	-	1	4.		0	0		0	50.3		5003	6		5003	50.3
≥ 20000		37.4	44.5	52.9	59.4	60.7	1.09	4.09	2.09	1.09	1.09	1.00	60.7	60.7	2.09	60.7
	*			•	\$ 65	1.00		60.7	2.09	1.09	1.09	0	2009	1.09	1.09	60.7
2 16000	;		;			0	0			2.09	0		0		0	2009
	3		44.5	20				6119		6119		-		61.9	6119	6119
2 12000	;	8			63.2	•	3	64.5	64.5	•	\$	64.5		64.5	4	54.5
1	9	-		0	6		71.0		-		•	•		11.0	-	71.0
0006		-		60.7	69.7	71.0	71.0	71.0	71.0	71.0		71.0	-	71.0	71.0	71.0
	0	3									2					75.5
141				64.5	74.2	•	75.5		•	75.5		2.	75.5	75.5		75.5
1	0	3.			*					5	5					75.5
2000	•	. 9			78.1	19.4	79.4							6	•	19.4
1	9				00	5	6			-	6	6		6	0	
000	9	-			80.7	2	2	•		82.6	2	2.		82.6		82.6
	0	1.		-	2.		3	5		85.2	2				-	
3000	9	•		•	•	86.5	.0				-	-		87.1	-	
	0	6		*	5		-			88.4	8	88.4				
2000				1001	8	0	0				:	-		-		
	9	0			œ	90.3		01.6		91.0			0116	91.0	016	0116
1 1 300	9	.0		78.1	-	5.	3.	;			;	;		*	2006	
	·c	0		18.1	-		3	34.5			2	2.	95.5	3	2	95.5
141		.0			-	6		•			1.96	9		96.1	1.96	
	0	0		78.7	-	3	34.5	94.8		1.96		•		. 9	1.96	
8		0		78.7	-		3	1.96			-	-		-	97.4	97.4
	9	0		1.8	91.6		95.5	1.96	1.96			97.4	4.16	4.16	4.16	97.4
8	.9			19.4	2.	95.5	.9	3.16		68.7	8	98.7		18.1	98.7	7.86
	9	-		4.66	65.6	98.5		4.16		186		48.7	48.7		1.86	98.7
400		:		10.4	93.6	96.1		98.1			6		6	6	4.66	
	9			•	93.6	1.96	31.4	1.86	98.1	7.56	5.66	19.66	0		00.00	
1 200	•	-		19.4	3	1.96		98.1			6	466	00	0	00.00	000
8	16.8	21.0	63.9	5.61	93.6		5.16	1.86	1.86	4.66		19.66	00.00	0000	•	0.00
٥	9	-			3	1096	4.16	1.06	2		43.4	27.4	9		00.00	0000

TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

AUG

19

CEILING							VISI	VISIBILITY (STATUTE MILES)	ATUTE MILI	(3)						
(FEET)	2	9 11	8	7	6 41	2 2%	2 4	71 71	71 71	-	% Al	*	Z AI	2 5/16	N AI	O AI
NO CEILING			36.8		0	50.3	-	51.0		51.6	9119	9116		5	•	9115
> 20000			40.1	51.6	56.1	9	37.4	57.4		*	8	58.1		58.	58.1	58.1
			0	51.6	56.1	56.8	57.4	27.4	58.1	58.1	58.1	58.1		58.1	58.1	58.
N 16000			40.7	51.6		9	-	-		58.1	58.1	58.1	58.1		58.1	58.
			-	52.3	26.8	57.4		58.1	58.7	58.7		58.7		58.7	58.7	58.
7 12000			41.9	53.6	*	8	29.4		0.09	ċ	•	0.09		ċ	90.0	000
			-	1.09		66.5	-	67.1	4.89	•	4.89	4.89	100	00		68.
000	15.5		47.1	60.7	65.8	66.5	67.7	-		4.89	4.89		68.4	•	68.4	68.
			:	65.8			*	74.2	74.8		14.8				74.8	74.
700			3	67.1	72.3	74.2	75.5		76.1					•	76.1	76.
1	16.1		7	68.4	3	0	8.1	1.81	8				8	78.	78.7	18.
2000			3		75.5	0	81.3	81.3	:	-	81.9		81.9	81.	81.9	81.
	16.1		;	10.3		-	3.5	63.9	*	*				*	*	84.
000		43.2		71.0	8	83.5	2	85.8	86.5		86.5	86.5	86.5	0	86.5	86.
1	191		5	71.0	0	*	6.5	87.1	-						-	87.
300	16.1		8	75.5		6	1.0	92.3	2.	2			2		92.9	92.
1			6	1.91	*		1.5		3	3	3			93.		93.
7000	16.1		0.09	16.3	85.2	0	2.3	93.6		3		34.5		0	94.2	. 76
			0	76.8	5	0	2.3			4			*	94.		. 76
150			0	77.4	ŝ	-	5.9		*	;	•		;	94.		. 76
1			0				3.6			3			95.5	5.		95.
8				77.4	85.8	-	3.6			9			9		96.8	96
			2009	77.4		-			9	9				.0	96.8	.96
8	16.1		2009	77.4		-	3.6		96.8		;	8.96	96.8	9	96.8	96
	1601		60.7	78.1	0	-	4.2				-	41.4			4.16	97.
8	16.1		61.3	78.7	37.1	85.6	5.5	98.1	98.7	48.7	7.36	98.7	98.7	98.7	98.7	98
			61.3	78.7	-	2	3	98.1			1.86	98.7	1.86	98.7	98.7	98.
8	16.1	4.8.4	61.3	78.7		93.6	1.9			6		*	66	66	4.66	66
	16.1		61.3	18.1	8	. 47			0	0.00	0.001		00	100.0	100.0	
30	16.1		61.3	78.7		*	9	4.66	100.001	0000			00	100	0	100
8		4.8.4	61.3	18.1	DC 0	2.76		3.66	0	00	•	0.0	•	100	0	
	100	•	6.10			3 . 4 .	75.6	37.	100.001	0.001	0000		0.001	100.0	0.001	.001

TOTAL NUMBER OF OBSERVATIONS

155

=

61.3

٨١

83.2

81.3

85.8

94.2

92.

91.6

34.2

CEILING VERSUS VISIBILITY

WILLOW GROVE, PENNSYLVANIA

WAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

PERCENTAGE FREQUENCY OF OCCURRENCE

(FROM HOURLY OBSERVATIONS)

20000

0

0

22

T S 1) SENON AUG MONTH

900

74.2 81.3 4.16 62.6 74.2 83.2 87.1 8.96 8.96 4.16 19.4 92.3 95.5 95.5 61.3 62.6 62.6 91.6 2.46 2006 85.8 85.8 98.1 61.3 80.7 ۸۱ 97.4 19.4 83.2 91.6 94.2 95.5 8.96 4.16 13.6 74.2 81.3 63.9 95.5 61.3 61.9 61.9 61.9 62.6 98.1 61.3 73.6 73.6 74.2 80.7 67.1 92.3 93.6 93.6 93.6 94.2 96.8 61.3 2 5/16 916 96.8 82.6 91.0 93.6 8. 46 80.7 1.96 96.8 85.2 96.1 83.2 83.2 86.5 86.5 8.46 8.46 4.16 80.0 80.0 80.0 ۸۱ 0.16 9116 93.6 82.6 73.5 8.46 97.4 6119 85.2 8.96 96.8 78.7 1.96 80.1 1.96 60.7 93.6 61.9 13.0 016 8.46 73.6 91.6 8.46 85.2 78.7 80.7 82.6 86.5 96.1 8.96 96.8 4.16 60.7 81.3 82.6 82.6 82.6 83.2 1.96 % Al 19.4 0.09 72.9 72.9 61.3 8006 0.16 95.5 95.5 54.8 0.09 0.00 78.1 80.0 81.9 84.5 85.8 95.9 92.3 92.9 34.5 2.76 96.1 96.8 96.1 ٨١ VISIBILITY (STATUTE MILES) 80.0 93.6 8.46 600 0.09 12.9 72.9 82.8 95.5 0.09 61.3 71.6 72.9 72.9 78.1 19.4 81.9 92.3 93.6 84.5 95.5 1.96 89.7 8.96 61.3 4.64 1.96 93.6 8.46 95.5 90.3 58.7 60.0 61.3 81.9 85.8 6.26 93.0 93.6 95.5 54.8 60.0 60.0 61.3 78.1 80.0 90.3 92.3 8.46 6.26 83.2 84.5 89.7 V 7 93.6 92.9 3.46 91.6 88.4 9116 11.6 84.5 6.06 0.09 76.8 78.1 80.7 0.69 78.7 7 91.0 71.6 91.0 91.6 9.9/ 63.9 91.6 54.8 60.0 0.00 4.80 18. 87.7 53.6 58.7 72.9 78.1 84.5 89.7 75.5 80.1 1 2% 77.4 71.6 85.8 61.9 66.5 13.6 74.8 82.6 83.2 85.8 61.9 66.5 84.5 85.8 85.8 86.5 86.5 78.7 ٨١ 51.0 71.6 77.4 78.1 77.4 78.1 51.0 1.19 62.0 68.4 0.69 72.9 75.5 76.1 67.7 78.1 18. 3 78.7 78.7 69. ٨١ 4.89 63.2 65.2 0.69 70.3 61.3 63.2 70.3 10.3 45.8 61.9 1.69 10.3 70.3 70.3 70.3 44.5 65.8 1.69 1.95 56.1 29.4 29.4 52.9 24.5 0.09 0.09 0.09 0.09 39.4 39.4 53.6 54.8 55.5 56.1 38.1 54.8 58.7 59.4 0.09 0.09 34.0 38.1 38.1 47.7 47.7 ٨١ 58.4 19.4 20.0 28.4 28.4 25.5 28.4 58.4 1.67 20.0 25.5 28.4 29.7 29.7 29.7 29.7 29.7 29.7 29.7 29.7 27.7 29.7 29.7 9 NO CEILING VI VI 0008 1 0008 (FEET) 12000 VI VI 000 000 000 000 000 2000 2000 3000 2000 1500 1000 88

4500

AI AI

AI AI

AI AI

AI AI

AI AI

ALAI

TOTAL NUMBER OF OBSERVATIONS

155

0866

98.7100.0106.0100.0 98.7100.0100.0100.0

98.7100.0100.0100.

98.7

7.86

98.1

97.4

62.5

87.7

78.7

70.3

0.09

29.7

88

AI AI

0.09

29.7 29.7 29.7

88

AI AI

0.09

87.

10.3

0.09

29.7

0.09

88

AI AI

87.

6.01

80

AI AI

86.5

6.56 2.46

3.16

98.1

4.16

4.76

1.96

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA STATION NAME

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL HOURS (1 5 7) AUG

200

ww	00														
			6.8		73.		82								
1 66	59.5														
- - •	59.0								91.9	92.7		95.5			99.1
2	59.0														
* -0	59.0		80 80	mm		. 0	82.4	-0		Ne		00	70		1.
3 -0	59.0	0 -	00 00	3		00	20	-0	· -	20	m +	0 0	00	-:	
N - 00	58.5	00		Ne	\$ 0	-0	- 10	00	00	- m	*	4 10	in 0	00	00
2	57.8						84.4							94.7	
≥ 1% 50.7 57.6	57.6											93.5		94.4	94.3
2 00	56.6	2 00	50	0.7	~ 3	::	0 N	00	200	00	00	00	-:		
2 20 4		00	9 0	- @	00	2 4	n &	2 2	o m	2	2 10	0 0	00	0 0	00
	52.4													-:	81.6
	47.7														71.7
2 36 2 40 3	00		46.1									00		00	
34.8			39.4											co ec	48.7
N 10 15.2	00	0.0			19.0	19.4	00	00	0.0	00	00	00	20.1		00
CEILING (FEET) NO CEILING		14000	10000	7000 7000	0000 2000 ALAI	4 4 500 4 600 5 600		2300	98.5	980	88	8 8	88	88	80

0

TOTAL NUMBER OF OBSERVATIONS

1240

> SMOS DIRNAVOCEANMET

> > D

20 12595 86181

100

CEILING VERSUS VISIBILITY

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS) WILLOW GROVE, PENNSYLVANIA

WAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

14793

0

HOURS (L S T 01

SEP MONTH

85.3 76.0 59.3 81.3 84.0 84.0 10. 14. 86.7 87. 66.7 67. 92.0 92. 0.0 74.0 83.3 0.96 80.7 88.0 0.46 80.0 83.3 11.3 70.0 88.0 88.7 58.7 14.7 75.3 84.7 86.7 56.7 76.7 84.7 56.7 56.7 66.7 74.0 58.7 70.0 75.3 80.0 92.0 11.3 83.3 63.3 88.0 88.0 0.46 0.46 0.0 86.7 88.7 86.7 66.7 74.7 16.1 84.7 80.7 84.7 84.7 56.7 2 5/16 56. 666.7 0.86 88.7 88.7 70.0 88.0 88.0 88.0 88.0 0.76 83.3 58.7 10.0 11.3 75.3 75.3 76.7 80.0 84.7 88.0 74.0 74.0 14.7 80.7 86.7 86.7 86.7 56.7 1.99 1.99 66.7 83.3 83.3 83.3 83.3 86.7 Z Al 0.0 71.3 76.7 88.0 92.0 92.0 92.0 56.7 1.99 70.0 14.1 84.7 80.0 80.0 80.0 58.7 84.7 86.7 0.46 0.46 83.3 56.1 80.7 * 74.0 66.7 66.7 71.3 88.7 88.7 70.0 75.3 75.3 88.0 88.0 66.7 70.0 98.0 83.3 56.7 58.7 16.1 80.7 84.7 84.1 86.7 14.1 7 10.0 0.0 71.3 58.7 0.4 66.7 83.3 86.7 74.7 76.7 80.7 84.7 86.7 56.7 56.7 56.7 84.0 84.7 92.0 92.0 93.3 56. 500 VISIBILITY (STATUTE MILES) 80.0 14.0 66.7 0.07 71.3 84.0 75.3 87.3 82.7 96.0 58.7 10.07 74.7 76.7 80.7 82.7 93.3 66.7 86.0 86.0 86.7 86.7 90.7 56.7 54.7 56.7 56.7 56.7 17 0.48 87.3 86.0 0.07 75.3 82.7 0.07 11.3 93.3 80.0 86.7 1.06 1.99 74.0 0.48 86.7 63.3 58.7 82.7 76.7 80.7 56.7 62.0 62.0 64.7 66.7 80.7 82.0 84.0 0.06 0.89 72.0 73.3 84.7 64.7 64.7 68.0 82.0 0.89 72.7 78.0 80.7 84.7 69.3 86.0 90.0 84.0 85.3 56.7 88.0 78.7 85.3 88.7 54.7 54.7 74.7 54.7 7 77.3 82.0 70.0 15.3 81.3 01.3 11.3 17.3 80.7 69.3 69.3 74.7 78.7 64.7 64.7 0.99 0.99 8 54.7 54.7 58.7 68.7 >2. 2 2% 50.7 62.0 66.0 70.0 70.0 76.7 84.0 68.7 74.0 78.0 80.0 80.0 74.7 76.7 78.0 80.7 84.0 21.3 75.3 76.7 81.3 83.3 52.7 80. M Al 75.3 61.3 65.3 58.0 62.0 63.3 67.3 54.0 66.0 71.3 72.7 56.7 68.7 74.0 34.0 57.3 69.3 75.3 58.0 70.0 76.0 53.3 65.3 70.7 5.2 55.3 58.7 33.3 55.3 67.3 72.7 70.0 76.7 51.3 28.7 46.0 55.3 58.7 67.3 57.3 61.3 60.7 64.7 4 70.0 57.3 69.3 57.3 69.3 47.3 57.3 55.3 67.3 57.3 69.3 46.7 6.84 20.0 28.7 46.0 52.0 50.7 40.7 36.7 40.7 30.0 34.0 34.0 34.0 34.0 20.0 30.0 30.7 35.0 33.3 34.0 34.0 34.0 26.0 30.7 34.0 31.3 34.0 24.0 34.0 14.1 32.7 24.7 NO CEILING 80 VI VI 18000 16000 1200 CEILING (FEET) > 20000 V I V 1 2000 VI VI 000 000 000 000 000 2000 4500 4000 3000 2800 888 88 88 88 88 900 AI AI AI AI 11 11 AI AI 11 11 AI AI AI AI ALAI AI AI ALAI AI AI AI AI

TOTAL NUMBER OF OBSERVATIONS

150

WILLOW GROVE, PENNSYLVANIA

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

14793

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

HOURS (L S T.) 40

SEP

20, 24, 25, 39, 39, 39, 30, 00, 44, 7, 47, 3, 49, 0, 49, 0, 49, 3, 49, 3, 50, 0, 50, 750, 750, 750, 750, 750, 75	CEILING							VISI	VISIBILITY (STATUTE MILES)	ATUTE MIL	ES)						
24.0 35.3 39.3 40.0 44.1 44. 47.3 48.0 48.0 49.0 54.0 54.0 54.0 54.7 54.7 56.0 56.0 56.0 56.0 58.0 54.0 54.0 54.0 54.0 54.7 54.7 56.0 56.0 56.0 58.0 56.0 58.0 54.0 54.0 54.0 54.0 54.0 54.0 56.0 56.0 56.0 56.0 56.0 56.0 56.0 56	(FEET)			S Al	AI AI						- AI		5.00		CONT.		
26.0 38.7 42.7 43.3 48.0 48.7 51.3 52.0 52.0 54.0 54.0 54.0 54.0 54.7 54.7 56.0 56. 56.0 56.0 56.0 56.0 56.0 56.0	NO CEILING	24.0		39.3	40.0						6	6	6	20.0	20.0	20.1	50.1
1800 25.0 38.7 42.7 43.3 48.0 48.7 51.3 52.0 52.0 54.0 54.0 54.0 54.7 54.7 54.7 54.0 54.0 54.0 54.0 54.7 54.7 54.7 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.7 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.7 54.0	> 20000	26.0		42.7	3	8	*	-	2	5.	*		;	24.7	4	•	26.0
10000 25.0 38.7 42.7 43.3 48.0 48.7 51.3 52.0 52.0 54.0 54.0 54.0 54.7 55.3 56.7 55.3 56.7 55.3 56.7 55.3 56.7 55.3 56.7 55.3 56.7		26.0	38.7	42.7	43.3	8	8	51.3	52.0	2		;		24.7		•	
26.7 39.8 7 42.8 43.8 48.0 48.7 51.3 52.0 52.0 54.0 54.0 54.0 54.0 54.0 54.7 54.7 56.7 56.3 56.7 56.0 56.3 56.7 56.0 56.3 56.7 56.0 56.7 36.7 56.7 56.7 56.7 56.7 56.7 56.7 56.7 5		26.0		45.7	43.3	8	•	51.3	55.0	2	;	*	*	54.7			26.0
10000 26, 7 39, 3 43, 3 44, 7 48, 7 49, 3 52, 0 52, 7 54, 7 54, 7 54, 7 54, 7 54, 7 55, 3 55, 3 56, 7 56, 10000 30, 0 43, 3 48, 7 51, 3 56, 0 56, 7 60, 7 60, 7 62, 7 62, 7 62, 7 64, 0 64, 0 65, 3 69		26.0		42.7	4303	8	48.7	-		N	*	*		24.1			0
30.00 33.0 43.3 48.7 51.3 56.0 56.7 60.0 60.7 60.7 62.7 62.7 62.7 62.7 64.0 64.0 65.3 65.3 65.3 65.3 65.3 65.3 65.3 65.3		26.7	39.	43.3		00		5		N	3	4	3	55.3	2.		56.7
32.0 43.3 48.7 51.3 56.0 56.7 66.0 60.7 66.7 66.7 66.7 66.7 66.7 6		30.0	3	48.1	51.3	9	9	0	0		2	N			. 5	65.3	65.3
32.0 46.7 52.0 54.7 59.3 60.0 64.0 64.7 66.7 66.7 66.7 66.7 68.0 68.0 69.3 69.3 69.3 69.3 69.3 69.3 69.3 69.3		30.0	43.	48.7	51.3	0	9		0	0	2				•	65.3	65.3
32.0 46.7 52.0 54.7 59.3 60.0 64.0 64.7 66.7 66.7 66.7 66.7 66.7 66.0 68.0 68.0 69.3 69.3 69.3 22.0 47.3 52.7 55.3 60.0 60.0 7 64.7 65.3 67.3 67.3 67.3 67.3 67.3 68.7 70.0 70.0 70.3 22.0 47.3 52.7 55.3 60.0 00.7 64.7 65.3 67.3 67.3 67.3 67.3 68.7 70.0 70.0 70.0 32.0 48.7 54.0 57.3 60.0 00.7 64.7 65.3 67.3 67.3 67.3 67.3 68.7 70.0 70.0 70.0 32.0 48.7 54.0 57.3 60.0 00.7 64.7 65.3 67.3 67.3 67.3 67.3 68.7 70.0 70.0 72.0 72.0 32.0 32.0 48.7 54.0 57.3 62.0 02.7 66.7 67.3 67.3 69.3 69.3 70.7 70.7 72.0 72.0 32.0 32.0 52.0 48.7 54.0 57.3 62.0 02.7 66.7 67.3 67.3 69.3 69.3 70.7 70.7 72.0 72.0 32.0 32.3 52.7 50.7 56.0 02.7 66.7 67.3 67.3 69.3 69.3 70.7 70.7 72.0 72.0 32.0 32.3 52.7 50.7 56.0 02.0 64.7 65.3 69.3 70.0 72.0 72.0 72.0 72.3 73.3 74.7 74.0 76.0 72.0 72.0 72.0 72.3 73.3 74.7 74.0 76.0 72.0 72.0 72.0 72.3 73.3 74.7 76.0 76.0 72.0 72.0 72.0 72.3 74.7 76.0 76.0 76.0 76.0 76.0 76.0 76.0 76	1	32.0	46.		54.7	6	0	4	64.7	64.7	9	1.09			8		69.3
22.0 47.3 52.7 55.3 60.0 60.7 64.7 65.3 65.3 67.3 67.3 67.3 68.7 68.7 70.0 70. 32.0 47.3 52.7 55.3 60.0 60.7 64.7 65.3 65.3 67.3 67.3 67.3 68.7 68.7 70.0 70. 32.0 47.3 52.7 56.0 57.3 62.0 62.7 64.7 65.3 67.3 67.3 67.3 69.3 69.3 70.7 77.0 77. 32.0 32.0 48.7 54.0 57.3 62.0 62.7 66.7 67.3 67.3 69.3 69.3 69.3 70.7 70.7 72.0 72. 32.0 32.0 48.7 56.0 60.0 64.7 65.3 69.3 70.0 72.0 72.0 72.0 73.3 70.7 70.7 72.0 72. 32.0 32.3 53.3 53.3 59.3 63.3 68.7 65.3 69.3 74.0 74.0 76.0 72.0 72.0 73.3 77.3 77.3 74.7 78. 32.0 33.3 53.3 59.3 63.3 68.7 69.3 73.3 74.0 74.0 76.0 76.0 76.0 77.3 77.3 77.3 78.7 78. 33.3 53.3 53.3 59.3 63.3 68.7 69.3 73.3 74.0 74.0 76.0 76.0 76.0 77.3 77.3 77.3 78.7 78. 33.3 54.7 61.3 65.3 68.7 70.0 74.0 74.7 74.7 77.3 77.3 78.7 78.7 80.0 80.7 80.7 80.7 82.0 82.0 83.3 83.3 84.7 84.0 84.0 84.0 85.3 85.3 85.3 85.3 54.7 61.3 65.3 70.7 72.7 78.7 80.0 82.7 82.7 82.7 82.0 82.0 82.0 82.0 82.0 82.0 82.0 82.0		32.0	46.	~	54.7	0	0	;	*	4	\$				8		69.3
32.0 47.3 52.7 55.3 60.0 60.7 64.7 65.3 67.3 67.3 67.3 67.3 68.7 68.7 70.0 70. 32.0 47.3 52.7 55.3 50.0 62.7 64.7 65.3 65.3 67.3 67.3 67.3 67.3 68.7 70.0 70. 32.0 48.7 54.0 57.3 62.0 62.7 66.7 67.3 67.3 69.3 69.3 69.3 70.7 70.7 72.0 72.0 32.0 48.7 54.0 67.3 62.0 62.7 66.3 70.2 70.0 70.0 72.0 72.0 72.0 72.0 72.0	1	32.0	47.	-	55.3	0.09	0	4	3	3	-	1.			0.		70.0
32.0 47.3 52.7 55.3 62.0 62.7 66.7 67.3 67.3 67.3 67.3 67.3 58.7 68.7 70.0 70.0 72.0 32.0 48.7 54.0 57.3 62.0 62.7 66.7 67.3 67.3 69.3 69.3 69.3 70.7 70.7 72.0 72.0 72.0 32.0 52.0 48.7 56.0 60.0 64.7 65.3 69.3 70.7 72.0 72.0 72.0 72.0 72.0 72.0 72.0		32.0	47.	52.7		0.09	0	3	5	5		-		68.7	8		70.0
32.0 48.7 54.0 57.3 62.0 62.7 66.7 67.3 69.3 69.3 69.3 70.7 70.7 72.0 72.0 72.0 52.0 48.7 54.0 57.3 62.0 62.7 66.7 67.3 67.3 69.3 69.3 69.3 70.7 70.7 72.0 72.0 72.0 52.0 48.7 54.0 57.3 62.0 64.7 65.3 69.3 70.0 72.0 72.0 72.0 73.3 73.3 74.7 74.7 74.2 75.0 53.3 53.3 53.3 53.3 53.3 53.3 53.3 5		32.0	47.	52.7		0.09	0	*	2	5	1	1		58.7	8		70.0
3500 32.7 50.7 56.0 60.0 64.7 65.3 69.3 70.0 70.0 72.0 72.0 72.0 73.3 73.3 74.7 74.2 74.3 52.7 50.7 56.0 60.0 64.7 65.3 69.3 70.0 70.0 72.0 72.0 72.0 72.0 73.3 73.3 74.7 74.7 74.2 73.3 59.3 59.3 63.3 68.7 69.3 73.3 74.0 74.0 76.0 76.0 76.0 77.3 77.3 78.7 78.7 78.7 78.0 33.3 53.3 59.3 59.3 63.3 68.7 69.3 73.3 74.0 74.0 76.0 76.0 76.0 77.3 77.3 78.7 78.7 78.7 78.0 33.3 53.3 53.3 59.3 63.3 68.7 69.3 73.3 74.0 74.0 74.0 76.0 76.0 76.0 77.3 77.3 78.7 78.7 78.7 78.0 78.0 78.0 76.0 77.3 77.3 78.7 78.7 78.7 78.0 78.0 76.0 76.0 77.3 77.3 78.7 78.7 78.7 78.0 78.0 83.3 83.3 84.7 88.0 83.3 53.3 54.7 61.3 65.3 70.7 72.7 78.0 78.0 80.7 80.7 80.7 80.7 80.7 80		32.0	400	:		62.0	2	9	-	1	6	6		70.7	0		72.0
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50. 53.3 54.7 61.3 65.3 70.7 72.7 78.0 79.3 79.3 82.0 82.0 82.0 83.3 83.3 84.7 84.8 80.0 83.3 54.7 61.3 65.3 71.3 73.3 78.7 80.0 80.0 82.7 82.7 82.7 84.0 84.0 84.0 85.3 85.3 83.3 54.7 61.3 65.3 71.3 73.3 78.7 80.0 80.0 82.7 82.7 82.7 84.0 84.0 84.0 85.3 85.3 85.3 54.7 61.3 66.0 72.0 74.0 79.3 80.7 80.7 83.3 83.3 83.3 84.7 84.7 84.7 86.0 86.0 86.0 85.0 85.0 86.0 86.0 86.0 86.0 86.0 86.0 86.0 86		33.3			64.7	10.0	•		•		ò	0	80.7	85.0	2	3	83.3
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23.3 54.7 61.3 65.3 71.3 73.3 78.7 80.0 80.0 82.7 82.7 84.0 84.0 85.3 85.3 85.3 85.3 54.7 61.3 66.0 72.0 74.0 79.3 80.7 83.3 83.3 83.3 84.7 84.7 84.7 86.0 86.0 85.3 80.0 85.3 85.0 85.3 86.0 86.0 87.3 88.7 86.0 86.0 33.3 54.7 61.3 67.3 74.0 76.7 82.7 84.7 84.7 88.7 90.7 90.7 92.0 92.0 92.0 93.3 93.3 54.7 61.3 68.0 75.3 76.0 84.7 87.3 87.3 91.3 93.3 93.3 94.7 94.7 96.0 96.0 96.7 96.0 96.0 96.0 96.0 98.0 93.3 93.3 54.7 61.3 68.0 76.0 78.7 85.3 88.7 88.7 92.7 94.7 94.7 96.0 96.0 97.3 98.0 93.3 54.7 61.3 68.0 76.0 78.7 85.3 88.7 88.7 92.7 94.7 94.7 96.0 98.0 99.3100.		33.3	_	61.3	65.3	-	•		0	0	2	5	82.7		4	85.3	85.3
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300 33.3 54.7 61.3 65.7 72.7 75.3 50.7 82.0 82.0 85.3 86.0 86.0 87.3 87.3 88.7 88.7 88. 300 33.3 54.7 61.3 67.3 74.0 76.7 82.7 84.7 88.7 90.7 90.7 90.7 92.0 92.0 93.3 93.3 30.3 35.3 54.7 61.3 68.0 75.3 78.0 84.7 87.3 87.3 91.3 93.3 94.7 94.7 94.7 96.0 96.0 96.0 96.0 96.0 96.0 96.0 96.0		33.3		-	0.99	3	•		0	0		3	83.3	84.7	*	•	86.0
33.3 54.7 61.3 67.3 74.0 76.7 82.7 84.7 88.7 90.7 90.7 92.0 92.0 93.3 93.3 54.7 61.3 68.0 75.3 78.0 84.7 87.3 91.3 93.3 93.3 94.7 94.7 94.7 96.0 96. 20 33.3 54.7 61.3 68.0 76.0 78.7 85.3 88.0 88.0 92.0 94.0 94.0 95.3 95.3 95.3 96.7 96.0 98.0 93.3 54.7 61.3 68.0 76.0 78.7 85.3 88.7 88.7 92.7 94.7 94.7 96.0 96.0 97.3 98.0 98.0 99.3100.		33.3		-	66.7	72.7		0	82.0	2	5	.0	•		-		88.7
30. 33.3 54.7 61.3 68.0 75.3 78.0 84.7 87.3 87.3 91.3 93.3 94.7 94.7 94.7 96.0 96. 20. 33.3 54.7 61.3 68.0 76.0 78.7 85.3 88.0 88.0 92.0 94.0 94.0 95.3 95.3 96.7 96. 10. 33.3 54.7 61.3 68.0 76.0 78.7 85.3 88.7 88.7 92.7 94.7 94.7 96.0 98.0 99.3100.		33.3		-				3	84.7	*	•	0	:	2	2	3	
200 33.3 54.7 61.3 68.0 76.0 78.7 85.3 88.0 88.0 92.0 94.0 94.0 95.3 95.3 96.7 96.0 93.3 54.7 61.3 68.0 76.0 78.7 85.3 88.7 88.7 92.7 94.7 94.7 96.0 96.0 97.3 98.0 93.3 54.7 61.3 68.0 76.0 78.7 85.3 88.7 88.7 92.7 94.7 98.0 98.0 99.3100.	1	33.3	in	61.3	00				87.3	-	-	10		1.96	4		0.96
100 33.3 54.7 61.3 68.0 76.0 78.7 85.3 88.7 88.7 92.7 94.7 96.0 96.0 97.3 98.0 33.3 54.7 61.3 68.0 76.0 78.7 85.3 88.7 88.7 92.7 94.7 98.0 98.0 99.3100.		33.3	3	61.3	(2)		78.7		88.0	00	•	4		95.3	5.	1.96	
0 33.3 54.7 61.3 68.0 76.0 78.7 85.3 88.7 88.7 94.7 94.7 98.0 98.0 99.3100.		33.3	*	61.3		0	18.	85.3			3		;	0	0	97.3	
		33.3	*	61.3	8	0	78.7	85.3	88.7		100	•	;	00	00	66.3	

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TOTAL NUMBER OF OBSERVATIONS

150

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900

CEILING VERSUS VISIBILITY

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

14793

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WILLOW GROVE, PENNSYLVANIA

73-77

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RCENTAGE FREQUENCY OF OCCURRENCE	A HOURLY OBSERVATION
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250 2000 250 3000 250 3000 250 3000	38	74	47.3	51.3	56.7		-	61.3	62.0	62.7	2.	64.7	3	65.3	65.
3500 2300 2300	39	42		2.	57.3	0		2	2.			65.3	99	9	99
3000	9		100	24.0	29.3	62.7	;		•	65.3	65.3	67.3	68.0	0.89	68.
3000		43	0.06	0.0		9	67.3		000	68.7		10.1	-		1
2500	.0 41.3	44	52.7	1.8	0.49	69.3	-	71.3	72.0	-			75.	75.3	75.
-	3	44	52.7	1.	24.1		72.0	72.0	72.7	~	13.3	15.3		76.0	76.
2 2000 2	42	46	54.7	1.0				•		•			-		
1800	42	40	55.3	61.3	68.1		16.0	16.0	•	17.3			20 +		
2 1500 20		47.3	0.95	2.0	69.3	74.7		76.7	77.3		78.0	80.0	80.	0	80.
1200	3	47.3	26.0	62.1	0.0			0.87	79.3	80.0			00		
2 1000 20	4	0.84	26.7	63.3	70.7	77.3	19.3	79.3	80.7	82.7	82.7	84.7	85.3	85.3	85.
8		7 6	26.7	63.3	1001	77.3		•	80.7	82.7	82.7	84.7	85.3	85.3	85.
8		8	57.3	64.7	72.7	•	81.3	81.3	82.7	84.7	84.7	86.7	87.3	87.3	87.
200		49.	58.0	65.3	13.3	80.0	2.	2.	83.3	85.3	85.3	87.3			88.
8			58.0	1.99	14.7	-	84.0	84.0	85.3	87.3		89.3	0.06	0.06	90.
905	1	20.	58.7	67.3	6.51	82.7	85.3		86.7	89.3	89.3	92.0	92.	92.7	
50 40			58.7	67.3	16.7	84.0	87.3	87.3		92.7	•		0.96	0.96	
8		20.	28.1	0.89	6.11	84.7	0.08	88.0	4006	63.3	3		96.	•	
200 20	0.44 0.	20.0	58.7		17.3	84.7	88.0	88.0	91.3	0.46	0.46	96.7	_	97.3	98.
8		1	1.85	0.89	17.3	84.7	88.0	88.0	91.3	0.96	0.96	46.7	97.3	97.3	
02 0			53.7		17.3	84.7	0.88		91.3	0.46	;	96.1	97.3	97.3	001

TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

14793

WILLOW GROVE, PENNSYLVANIA

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

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		90	m m	-		mm	-		-	1	-	m m	m 0	0 m	w w	69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
	AI AI	44	64	50	56		000	68	76	82	85	91.		93	97	69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
	*	200	m m	00	00	70	-	2	00	101		mm	0.0	om	30	69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
	AI	4 6 4	64	50				100		82		92	92	26	97	69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 76.3 97.3 97.3 9 69.3 76.3 76.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
	-				00								. "			69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
ES)	AI	44	4 6 4	500	200	63				79		400	90	91	2 6	69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
VISIBILITY (STATUTE MILES)	7.1	0	6.6			333						0.0	0.0	1.3		0 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 0 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 0 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 0 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
TATU	Al	4 6	3 3	20	20	00	00	00	1.	- 30	ac ac	20 0	6 6	00	00	0 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 0 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 0 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 0 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
17 (5	7,	3.0	00	0.0	0.0		4.5		0.0	1.3	. 0	0.0	0.0	1.3	3.3	0 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 0 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 0 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 0 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
SIBIL	AI	4 4	3 3	N a	100 K	00	00	00			- a	3 6	60	7 91	00	69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
*	~ Al	40	00	0 -		200	3 3	3 00	0 0	200	Om	60	60	00	2 2	69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
		0 6	4 2	0 6	10 to		00		-	00	00	90		90	00	9.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9.3 79.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 99.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 30.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 30.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 30.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 30.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 30.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 1		
	2 2%	44	6 6	50.	55	62.	40	4 00		16		300	8 9	86	88	9.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9.3 79.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 99.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 1		
		019	3	0 m		w w		m 0		0 m	mr	- 0	20	- 0		9.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9.3 79.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 99.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 1		
	AI	44	6 6	50	3.4		29	mo	- N		00	0 2	2 2	83		9.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9.3 79.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 99.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 79.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.31		
		m c	00	- 0	m m	mm		m m		-0	O m	· w	0 0	90	2 50	9.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9.3 79.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 99.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.3 79.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.31		
	AI	4 4 W 60	4 4	4 %	W 10	500	900	03	6.9	12	25	25	78	73	200	69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 76.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
	•	.0	00		000		00		00	. 0	00		2.0		4.0	69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
	AI	1	1		-		1	1	00		1		1	1		69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 95.3 97.3 97.3 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 98.7 98.7 9 69.3 79.3 84.7 88.0 92.0 93.3 94.0 96.7 99.3 99.310		
	•	39.3	44.0	44.1	47.3	200	2.7											
	AI .			1	1	1)	1	1	1	1	1	1	1	1	09	1	
	9	0 -			2.0	4 4	3 3	5.5	6.0	9.9	26.0	0.0	00	00	0 0	0.0	6.1	
	٨١	77	~	20	120	NN	24	NN	77	22	22	NN	NIN	20	22	22	Na	
CEILING	E	NO CEILING	18000	1400	0000	88	9000	4500	3000	2000	800	88	88	88	88	88	80	
CELL	E	9 4	AI A	1 414	NI AI A		1					ALAI	ALAI	ALAI	ALAI	ALAI	ALAI	

0

150

TOTAL NUMBER OF OBSERVATIONS

61.3

62.7

62.7

61.3

68.0 76.0 85.3

82.7

85.3

0.06

93.3 0.46 0.96

90.7

56.0

56.0

50.7

48.7

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CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA STATION NAME

14793 STATION

MOURS (L S T.) SEP MONTH 13

200

96.0 99.3 99.3 99.3 99.3 99.3400.0100.0100.0100.0100.0100.0100.0 0.89 67.3 85.3 0.46 0.96 0.96 99.3 56.0 85.3 56.0 6119 93.3 98.0 98.0 50.7 61.3 76.0 90.0 7.96 62.7 48.7 82.7 62. 90. % Al 85.3 76.0 0.96 56.0 0.89 0.46 0.96 61.3 67.3 93.3 61,3 82.7 85.3 0.06 50.7 7.06 96.7 48.7 48.7 56.0 62.7 64.1 48.7 62.7 2 5/16 67.3 76.0 96.0 50.0 61.3 85.3 0.06 0.46 0.96 0.86 66.3 0.89 93.3 0.96 61.3 85.3 1.96 82.7 50.7 62.7 62.7 1.06 48.7 04. 2 1 76.0 61.3 67.3 0.96 99.3 56.0 56.0 56.0 50.7 0.96 0.96 0.96 99.3 99.3 99.3 48.7 48.7 48.7 56.0 61.3 62.7 0.89 85.3 85.3 85.3 85.3 90.0 93.3 0.46 0.46 98.0 98.0 98.0 62.7 96.7 64.7 82.7 48.7 90.1 * 0.96 68.0 76.0 85.3 85.3 0.06 0.06 61.3 67.3 66.3 56.0 1.06 96.7 48.7 48.7 50.7 61.3 61.3 62.1 62.7 64. 93.3 82.7 48. X Al PERCENTAGE FREQUENCY OF OCCURRENCE 0.96 66.3 76.0 93.3 0.46 56.0 0.80 61.3 67.3 48.7 50.7 96.7 90.7 62.7 82.7 64. _ AI VISIBILITY (STATUTE MILES) (FROM HOURLY OBSERVATIONS) 67.3 85.3 26.0 56.0 68.0 76.0 85.3 0.06 93.3 95.3 0.96 48.7 61.3 1.49 82.7 95.3 61.3 61.3 92.7 98.7 7.86 50.7 7.06 48.7 62.7 48.7 43.7 62.7 ¥ 1% 26.0 0.06 0.96 26.0 76.0 85.3 67.3 85.3 63.3 61.3 48.7 0.89 97.3 50.7 61.3 82.7 95.3 95.3 62.7 62.7 1.06 92.7 98.7 98.7 40.7 64.1 7 7 85.3 0.89 76.0 0.06 95.3 0.96 0.86 26.0 26.0 85.3 92.0 61.3 6.79 6103 67.3 67.3 90.7 1.46 50.7 61.3 82.7 62.7 94.7 48.7 62.7 92.7 48.7 48.7 54. 48. 7 92.0 0.46 26.0 76.0 0.06 0.46 0.80 85.3 0.46 95.3 56.0 61,3 85.3 98.3 61.3 48.7 50.7 62.7 90. 48 62. 54. 82. 92. 94. 48. 72 7 96.0 56.0 93.3 0.46 67.3 76.0 0.06 61.3 61.3 68.0 82.0 89.3 91.3 86.7 92.0 93.3 88.0 93.3 0.46 48.7 48.7 62.7 84.1 48.7 50.7 64.7 84.7 62. . 84 M 88.0 24.0 0.99 88 88.0 59.3 65.3 24.0 59.3 0.98 73.3 85.3 46.7 48.7 1.09 80.7 86.7 88.7 88.7 60.7 78.1 62.1 80. ٨ł 80.0 45.3 47.3 57.3 78.0 80.0 80.0 80.0 61.3 79.3 0.29 79.3 57.3 56.7 68.0 74.7 78.7 80.0 52.1 52.7 58.1 12.7 14. 56. 11 54.0 67.3 51.3 65.3 0.89 68.0 0.89 40.0 0.00 0.04 0.04 42.0 20.0 20.0 50.7 59.3 68.7 50.7 68.7 68.7 46.7 46.7 63.3 65.3 68.7 68.7 68.7 4 25.3 28.0 6.6 27.3 18.0 19.3 23.3 25.3 29.3 19.3 19.3 23.3 25.3 25.3 25.0 27.3 29.3 29.3 29.3 29.3 29.3 29.3 29.3 29.3 29.3 28.7 29.3 28.7 20.7 28.7 9 NO CEILING VI VI 0008 0008 (FEET) > 20000 12000 VI VI 2000 3500 2000 1800 200 8 8 9000 4500 88 88 88 AI AI ALAI ALAI ALA MIM MINI

TOTAL NUMBER OF OBSERVATIONS

6.66 86.66

98.0 98.0

95.3

0.46

80.0

29.3

29.3

80

ALA

150

8016

96.7

SOWS DIRNAVOCEANMET

82.0

73.3

88.0

0.96

1.96 94.7

95.3

96.7

96

91.3

52.0

46.

0 Al

52.0

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA STATION NAME

73-77

I

				PERCE	PERCENTAGE FREQUENCY (FROM HOURLY ORS	E FREQUE HOURLY	DENC IV OF		NCY OF OCCURRENCE OBSERVATIONS)	RENCI					16 AUDIN 16	-0
CEILING								IBILITY (ST	VISIBILITY (STATUTE MILES	<u> </u>						
(FEET)	2	9 Al	S) Al	AI	AI	≥ 2%	2 4	¥1 Y	¥1 Y	-	* 11	*	Z AI	≥ 5/16	N AI	
NO CEILING	20.02	38.7	41.3	50.0	45.3	52.0	52.0	46.7	52.0	46.7	46.1	52.0	\$2.0	52.0	46.7	-
V 19000	2	43		50.0	1 20	2	10	•	-	32	52	52.				
141		43		50.0		52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	2	52.0	
¥ 14000		43.	46.7	50.0	50.7			52.0		52.0	25	25.	95.0		7	Γ.
≥ 12000		**		52	52	54.0			3	4	34	54.			24.0	
		34			58.0	6	29.3	59.3	29.3		59.3	59.3	59.3	59.3	59.3	Γ.
> 8000		48.		57.3	20		59.3		5	6	59.3	-	29.3		59.3	
		52.	_	62.1	3			1.49	•	*	64.1			04.1	1.40	
1 1		52.		62.7	63.3	64.7	*	64.7	64.7		64.7	64.7	64.7	64.7	64.7	_
1		52.	28	0	99	050		65.3	65.3	3	65.3	-			65.3	
2000		54.	9	65.3		67.3		67.3	67.3		~		67.3		67.3	_
		55.	0	0.99	99	8		0.89	0.80		8		0.80		0.89	
1 1	25.3	58.		70.0	70.7	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	•
		59.	99	71.3	12			73.3	73.3	1	73.3		13.3		73.3	
3000		64.	-	-		•			82.0	2	N		82.0			_
1		99		81.3	84.0	85.3	25	85.3	85.3	3	85.3		85.3			
7 2000		68	-	83				88.0	88.0	8	88.0		88.0			_
		68.		83.3	86.7	98.0		8	88.0	80	8		88.0		8	
1500	•	68	78.	85.3	89.3		40.0	91.3	91.3	91.3	91.3	91.3	91.3	-	6116	-
		69		86.7	91.3	2	92.7	93.3	93.3	0.76	0.46	0.06		0.46	0.46	
90	27.3	69	80.	86.7	92.0	93.3	93.3	0.46		*	7.46		1.46	;	1.96	•
		69	80		92.0	93.3		0.96	3	1.76	1.96		1.46	94.1	1:46	
8		69		87.3	2	0.46	*	1.46	24.7		65.3		95.3	95.3	95.3	•
		69	80.7	87.3	92.7	0.46	*	47	24.7	95.3	95.3	95.3	95.3	95.3	95.3	
8	27.3	69		88.0	93.3	4.7	95.3	0.96	96.0	1.96	1.96		1.96	1.96	1.96	-
		69		88.0	93.3	34.		0.96		1.96	1.96	1006	1006	1.96	1006	
1 1	27.3	70.	81.3	89.3	64.7	96.7	97.3	0.86	98.0	7.86	18.1	28.1	7.86	48.7	7.86	•
		1	1	00	18	70		WO	20	1	*			*	. 000	Γ

TOTAL NUMBER OF OBSERVATIONS

150

1881

96.7 97.3 98.7 98.7 99.3 99.3 99.3 99.3 99.3 99.3 99.3

6.66 66.3

67.3 67.3

96

89.3 94.7

27.3 70.0 81.3 89.3

27.3

88

ALAI

89.3

81.3 81.3

0.0 10.0

27.3 27.3

80

AI AI

89.3

98.7

14793 STATION

5460

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

0

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

19 HOURS (1 S.T.) SEP

100

CEILING							VISIV	BILITY (ST.	VISIBILITY (STATUTE MILES)	S						
	2	41	9 0	7	e Al	1 2%	71	VI %	VI ¾	<u>-</u>	× Al	*	2	2 5/16	× 11	٨١
NO CEILING	24.0	38.7	42.7	44.1	52.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
V 18000	24.7	40.1		6.65		24.0		5			24.0	24.0			24.0	24.0
	24.7	000	40.3	6.64	52.0	0.00	24.0	24.0	24.0	54.0	24.0	0.40	24.0	24.0	0.00	24.0
17 1000		42.7		52.0	32.3	28.0	28.0	• •	28	58.0	58.0	58.0	58.0	58.0	58.0	58.0
N 10000		47.3	54		62.7		65.3	0	•	10000	0					65.3
		47.3		50.3	62.1	62.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
900 7000 7000	•	200		04.0	68.7	10.	70.7	71.3	71.3	710.7	71.3	71.3	71.3	71.3	71.3	71.3
1	30.0	52.7	6119	66.7	1001	100	73.3	3.	73.3			13.3		73.3	73.3	73.3
2000	30.7	53.3	52.7	0.89	72.0	74.7	74.7	74.7	74.7	-	74.7	74.7	74.7	74.7	74.7	74.7
4500	30.7	54.7		69.3	73.3	74.7	76.0	76.0	16.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
	32.0	26.0		72.0	•	19.3	10.3					19.3			79.3	79.3
3 8	34.0	60.09	70.7	77.3		84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7
1	34.0	61.3	72.0	78.7	82.7		86.7		86.7	199		1000	86.7	86.7		86.7
≥ 2000	34.0	5.	73.3	80.0	84.0	88.0	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
91 41 41	34.0	62.0	73.3	80.0	84.0	88.7	89.3	89.3	89.3	88.7	89.3	89.3	89.3	89.3	89.3	89.3
1	34.0	2		81.3	85.3		0.06	0	0.06	0.06	0.06	0.06		0.06	0.06	0.06
1000	34.0	2.	74.7	81.3	86.7	10.06	61.3	91.3	91.3	91.3	61.3	91.3	91.3	91.3	91.3	91.3
88	34.0	2	74.7	801.0	86.7	90.0	91.3	63.3	91.3	91.3	61.9	91.3	91.3	91.3	91.3	91.3
	34.0	100	75.3	82.0	87.3	92.0	92.7		93.3	93.3	93.3		93.3		93.3	93.3
8	34.0	;	76.0	82.7	88.7	0.46	1.56	8.56	•	0.96	0.96	0.96	0.06	96.0	0.96	0.96
88	34.0	3 3	76.0	82.7	88.7	0.46	7.76	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0
	34.0	0.40	76.7	83.3	89.3	94.7	0.96	97.3	97.3	00.00	00.00	00.00	0.00	0000	00.00	0.00
	34.0	22	76.7	83.3	89.3	94.7	0.96	97.3	97.3	0000	00.00	0.00	00.00	100.0	0000	00.00

0

0

TOTAL NUMBER OF OBSERVATIONS

150

4

0

0

WILLOW GROVE, PENNSYLVANIA

14793

WAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

PERCENTAGE FREQUENCY OF OCCURRENCE

(FROM HOURLY OBSERVATIONS)

NO CEILING

¥ 20000

(FEET)

VI VI 0008 0008 0008

12000

000 000 000

AI AI

0

2000

AI AI

0

900

AI AI

4500 4000

AI AI

3500

3000

AI AI

2000

AI AI

1800

AI AI

88

88

AI AI

88

88

SEP MONTH 22

3

HOURS (L S T

56.0

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56.0

88.0 85.3 84.0 84.0 86.7 0.06 0.06 86. 26.0 57.3 71.3 73.3 79.3 89.3 71.3 56.0 14.0 88.0 0.2/ 0.26 0.46 85.3 86.7 91.3 76.7 86.7 88.7 96.7 64.7 ۸۱ 0.95 84.0 0.26 56.0 71.3 73.3 85.3 88.0 89.3 0.06 0.46 57.3 64.7 71.3 72.0 74.0 76.7 19.3 86.7 86.7 91.3 64.7 88.7 2 5/16 56.1 94.7 96.7 0.95 73.3 0.76 0.4 79.3 85.3 88.0 0.46 57.3 1.3 71.3 84.0 0.06 6116 56.0 64.7 72.0 76.7 86.7 86.7 89,3 88.7 2 73.3 57.3 89.3 19.3 84.0 88.0 88.0 0.76 56.0 72.0 0.01 0.46 0.46 56.0 71.3 0.06 64.7 86.7 91.3 91.3 11.3 76.7 85.3 88.7 86.7 96.7 94. * 57.3 89.3 56.0 0.06 96.0 99.0 73.3 84.0 71.3 74.0 71.3 72.0 79.3 85.3 95.0 86.7 64.7 76.7 86.7 86.7 88.7 % AI 89.3 71.3 73.3 74.0 79.3 88.0 88.0 88.7 91.3 92.0 12.0 84.0 0.46 56.0 55.3 56.0 56.7 57.3 73.3 85.3 71.3 86.0 86.7 64.7 76.0 76.7 93.3 94.7 95.3 96.7 56.0 56.7 64.0 64.1 ۸۱ VISIBILITY (STATUTE MILES) 0.49 0.98 55.3 87.3 71.3 72.7 83.3 89.3 70.7 84.7 6.16 78.7 90.7 70.7 92.7 88.7 V 17 0.98 0.49 16.0 55.3 72.7 83.3 0.49 86.0 87.3 89.3 56.7 70.7 71.3 91.3 95.3 55.3 73.3 86.7 88.0 90.7 92.7 10.1 87.3 88.7 84.7 17 75.3 78.0 86.0 87.3 70.7 89.3 0.99 11.3 0.48 0.56 26.0 0.49 64.0 84.7 91.3 55.3 58.3 12.7 82.7 84.7 7007 72.7 7.06 92.7 56.7 88.7 7 72.0 0.49 63.3 0.0/ 70.0 84.0 0.98 91.3 12.0 87.3 89.3 0.06 55.3 26.0 0.40 17.3 82.0 65.3 88.0 74.7 56.7 86.7 70. 86.7 2 21/2 55.3 63.3 82.0 82.0 84.0 88.0 73.3 82.0 56.0 63.3 70.7 76.0 83.3 84.0 55.3 68.7 69.3 86.0 56.7 7001 76.0 80.7 84.0 84.7 58.7 79.3 84.7 ۸I 59.3 78.0 71.3 52.0 59.3 6.61 80.0 51.3 65.3 66.7 76.7 78.7 76.7 80.0 81.3 52.7 16.1 16.1 18. 62.0 64.7 54.0 64.0 66.7 56.0 66.0 68.7 51.3 52.0 62.0 64.7 Al 6.65 76.0 78.0 75.3 0.91 73.3 75.3 0.49 13.3 62.7 57.3 68.0 63.3 75.3 49.3 72.7 73.3 76.7 43.3 50.7 56.7 62.7 74.7 48.0 56.7 VI VI 48.0 24.0 62.0 0.49 42.0 52.0 63.3 0.49 45.0 0.49 0.79 45.0 61.3 62.0 62.0 63.3 0.49 52.7 ٨١ 32.0 0.04 28.0 35.3 37.3 36.0 0.04 27.3 32.0 35.3 37.3 38.0 0.0 0.04 37.3 0.04 40.7 26.7 40.7 40.7 40.7 26.7 26.1 40.1 40.7 40.7 40.7 40.7

TOTAL NUMBER OF OBSERVATIONS

99.3100.0100.0100.0100.0100.0100.0100.0 99.3100.0100.0100.0100.0100.0100.0100.0

96.7

0.46

91.3

81.3

40.7

88

AI AI

40.

80

96.7

88.0

78.0

0.46

150

WILLOW GROVE, PENNSYLVANIA

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

PERCENTAGE FREQUENCY OF OCCURRENCE

FROM HOURLY OBSERVATIONS)

ALL MOUNT ILET SEP

=

86.2 53.2 53.3 67.0 0.69 0.78 4.68 9119 68.1 53.2 53.2 9.19 54.9 8.99 53.3 73.8 84.0 84.2 86.1 9006 86.69 6116 98.6 81.5 89.8 54.5 61.6 72.1 79.1 91.1 92.7 53.0 53.0 89.3 81.3 61.3 61.4 8.99 61.0 71.9 13.6 78.9 85.9 89.6 61.4 1.69 83.8 84.0 86.8 6.06 54.8 68.8 91.1 92.5 84.3 66.6 66.7 8.19 86.8 016 53.1 81.3 89.2 89.5 61.3 85.8 52.9 52.9 8.89 13.5 78.8 83.8 8.06 4.26 64.3 6.96 80.99 71.8 54.7 47.7 2 52.9 2.69 71.4 89.1 60.4 60.8 60.9 60.9 66.9 67.3 67.4 67.4 67.4 67.8 68.3 78.4 85.4 9006 2.99 52.8 80.8 52.8 52.8 6.09 6.09 66.3 73.1 63.5 86.3 88.8 88.8 4.06 4.06 92.0 95.8 97.2 54.5 54.5 83.3 71.4 52.8 52.9 85.4 90.06 92.0 47.3 2.69 73.1 66.3 78.4 83.5 85.3 86.2 86.3 1.68 80.8 80.8 83.3 93.1 93.6 2.16 7 52.7 54.4 6.96 52.8 91.6 1.69 73.0 78.3 60.8 66.1 70.9 71.3 84.6 85.3 83.4 90.1 97.0 52.7 88.8 90.3 66.3 82.6 83.2 82.8 83.3 ٨I VISIBILITY (STATUTE MILES) 72.6 52.4 65.7 65.7 80.3 52.3 24.0 4.06 65.8 67.8 93.3 89.1 89.3 68.7 87.5 87.5 40.07 59.8 60.4 80.3 67.8 4.06 24.0 72.6 77.9 82.6 84.5 52.3 52.4 65.8 82.8 87.8 89.3 84.4 85.3 89.1 93.8 69.9 91.7 68.7 51.9 88.0 96.4 70.3 77.2 0.26 1.59 0.89 51.8 51.8 59.8 65.3 66.3 19.5 86.7 87.8 91.2 1.9 81.9 51.3 53.5 67.3 81.8 83.7 89.1 1.06 7 50.8 58.7 68.0 50.8 55.5 63.8 68.8 9099 68.8 17.5 9.6/ 81.5 66.5 50.9 10.3 75.3 83.9 81.3 84.1 85.3 86.2 88.5 6.49 85.1 82.2 79.7 87.1 50.0 75.6 19.0 65.0 49.8 25.4 45.3 51.1 54.6 57.5 68.6 77.3 19.6 63.3 51.5 25.4 45.3 51.1 54.6 57.5 65.3 64.3 73.6 77.4 81.2 8.64 67.1 82.2 62.3 82.3 83.8 83.1 84.8 N Al 47.0 0. 14 4.44 56.8 61.0 16.6 42.2 60.3 65.0 65.5 71.4 72.9 74.9 78.9 44.6 47.2 48.6 27.6 49.3 55.9 60.1 28.2 50.6 57.5 61.8 59.3 63.6 73.0 0.91 68.3 74.5 77.2 70.8 78.0 78.2 59.2 64.2 69.7 76.7 1 4.69 20.0 70.3 45.8 55.1 6.99 69.8 1001 70.8 55.0 67.0 10.5 30.6 59.4 68.7 0.04 0.04 40.5 52.2 56.0 59.7 4.09 27.9 50.0 0.09 30.7 60.4 27.3 48.4 27.4 48.5 29.0 52.9 57.2 58.3 59.1 60.3 4.09 41.3 58.3 59.8 60.1 6000 4.09 28.5 6.62 22.8 30.3 23.4 30.2 30.3 30.7 22.8 30.5 30.7 30.7 20.8 30.7 30.7 30.7 30.7 NO CEILING VI VI 0009 16000 V I V 12000 1800 98 80 (FEET) ¥ 20000 2000 00 00 00 00 00 00 3000 88 7000 88 8 8 88 88 88 AI AI AI AI ALAI AI ALAI AI AI AI AI

TOTAL NUMBER OF OBSERVATIONS

1200

136

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

10 10 Mounts UCT .

2

	YI VI	58.	63.9 6	63.9	63.9	69.7 69.	74.8 74.	74.8 74.	76.1 76	79.4 79.	80.7 80	87.6	83.9 83.	83.9	87.7	88.4	91.6	91.6	94.2	1-	86	
	2 5/16	1 58.	9 63.	9 63.	9 63.	7 69.	8 74.	8 74.	1 76.	4 79	7 80.	6 87	9 83.	8 83	7 87	4 88	0 91.	6 91.	6 93	98	98	
	VI X	58	63	63	63	69	8 74.	8 74.	1 76.	4 79	7 80	82.	9 83.	8 85.	7 87	4 88	0 91.	0 91.	9 93.	86 9	96	
	* AI	10	00	6	0	-	8 74	8 74	1 76	4	7 80	8 8 3	83	7 00	7 87	*	0 91	16 9	76 6	7 76.1 79.4 64.5 86.5 90.3 91.3 76.8 80.0 85.8 87.7 93.6 94.3 76.8 80.0 85.8 87.7 93.6 94.3 76.8 80.0 85.8 87.7 93.6 94.3 76.8 80.0 85.8 87.7 93.6 94.		
	AI	58	20	63	2	69 0	NN	2 74	5 76	1 79	08 0	9 90	2 83	83	1 87	88	16	mo	26 6	7 76.1 79.4 64.5 86.5 90.3 91.6 91.6 93.6 94.2 94.2 3 76.8 80.0 85.8 87.7 93.6 94.8 94.8 95.8 97.4 97.4 3 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.4 3 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.4 3 76.8 60.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.4		
MILES)	71 71		2 63	2 63	5 63	69	2 74	2 74	5 75	1 78	08 4	2 0	6 8 3	8 00	5 87	1 87	1 90	7 90	3 92	7 76.1 79.4 64.5 86.5 90.3 91.6 91.6 93.6 94.2 94.2 3 76.8 80.0 85.8 87.7 93.6 94.8 94.8 95.4 97.4 3 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.4 3 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.4 3 76.8 60.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.4		
T (STATUTE MILES)	A1 %1	53	63	63	63	69 0	2 74	.2 74	5 75	1 78	201	18 6	6 82	5 82	.5 86	18 1	.7 89	.3 90	200	7 76.1 79.4 64.5 86.5 90.3 91.6 91.6 93.6 94.2 94.2 3 76.8 80.0 85.8 87.7 93.6 94.8 94.8 95.8 97.4 97.4 3 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.4 3 76.8 60.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.4		
VISIBILITY	2 2	4.0	9.4	9	9 9.	4 4	6 74	.6 74	8 75	7 9 7	6	, A	0		100 H	2	4	68 40	0600	7 76.1 79.4 64.5 86.5 90.3 91.6 91.6 93.6 94.2 94. 3 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97. 3 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97. 3 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.		
	21/2	000	00	0	6.	.7.6	0.0	6.	0.	11.	2:	- 3	20	0.00	000	2 2	80	10 10 10 10	00 m	7 76.1 79.4 64.5 86.5 90.3 91.6 91.6 93.6 94.2 94. 3 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97. 3 76.3 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97. 3 76.3 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.		
	AI e		01	0	.7 6	5 5	0.0	100	60		1.	:	3		9 0	2 2 .	.9	0 0	0 00	7 76.1 79.4 64.5 86.5 90.3 91.6 91.6 93.6 94.2 94. 3 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97. 3 76.3 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97. 3 76.3 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.		
	A1 -	-	4.4	7.	7.4	NN	3 3	*	0	-	00	- 10	-	- 4	-	4	3.	-	3 4	76.1 79.4 64.5 86.5 90.3 91.6 91.6 93.6 94.2 94 76.8 80.0 85.8 87.7 93.6 94.8 94.8 95.8 97.4 97 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97		
	s	51.6 5			5.1	00	0.0	5.5	-:		2.3	200	0	6.2	5.5	1:3	5.17	1.0	1.5	76.1 79.4 64.5 86.5 90.3 91.6 91.6 93.6 94.2 94.7 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.7 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.7 76.8 80.0 85.8 87.7 93.6 94.8 94.8 96.8 97.4 97.7 93.6 94.8 94.8 96.8 97.4 97.		
	o Al	0.0	0	2 0	9	58.7	0 0	9	2	2 70	00 0	0 10	-	67.1	01	-	~	69.7		m n	me	
	0 1	38.1	0.04	0.04	40.0	42.6	44.5	44.5	44.5	4 4	45.8			1	1	- 1		3 4	3	3 4	1 d	
CEILING	(FEET)	NO CEILING	18000		> 12000	0000 0006	0008	1	0005	VI VI 0004 0004			7 200	VI VI 0081	1	8	1 1 1	VIV 88	88			

TOTAL NUMBER OF OBSERVATIONS

155

8888

DIRNAVOCEANMET SMOS

CEILING VERSUS VISIBILITY

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

MILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

DCT.

200

CEILING																
(FEET)	0 1	Ø AI	8 41	41	E 41	2 2%	2 4	V 1%	71 71	- AI	% Al	* 11	% Al	≥ 5/16	¾ Al	AI .
O CEILING			1 -		50.		1 .	\$2.3	52.3					4.	54.8	54.
× 20000			0.65	49.7	2	2	3	;	24.8	56.1	\$6.8	•	•			57.
> 18000					2	2.		;	8.45				-		57.4	57.
14000				6	×	2			24.8	•	•	•	•	•		57.
					52.	2	3			9	.0		-		57.04	57.
12000	33.6	-	49.7	50.3	5	53.6	54.5	55.5	55.5	. 9	-	57.4	-			58.
		54.			59.	0	0	:		3					64.5	. 49
8		54.			59.	0	60.7	-	:	3		3			;	
		58			63.	20					69					.69
1 41	39.4	58	0.09	60.7	63.	65.5	3	67.1	-	4.89	69	0.69	0.69	0.69	69.7	69
		58			64.	3				6	69	•				10.
88		909			•	7.	00	6	6	-	71.	:				72.
1		00			67.	00		0	0	-	72.	12.3				
1 4		62.	64.5	5	69	70.3		2	72.3	;	74.					9
		62.		5	69	0		2.		4	14.					
3000	-	63		5	69			3.	3.	2	76.				•	
		63.			11.	2	M			9	1	3.1				78.
2000	-	96		67.7		2		2		8	78.					80.
1		65.			72.	4				19.4	80.0	80.0		0		81.
1 20	-	66.		71.0	74.			6		•	•		•	83.2		83.
		99		-				6	0	:	82.6	9529		3		83.
88	-	66		2	76.		0	-		5		86.5	•			2000
80		66		2.	16		81.3	2.		0		87.1	87.7		88.4	88
8	-	99		2	76.		-	3.		:		87.7	8		•	6
		66.		2.					3	-		87.7	8		•	89.0
38		99	4.89	72.3			81.9	83.2		87.1		87.7		•	89.0	89.
		66		2			83.2		2	88.4			0	90.3		.16
38	-	99	69.7	73.6	78.1	81.3	83.9	3	1	90.3	91.0	-	92.3	92.3		92.
		99	69.7		78.1	61.3	83.9	85.6				0.16	7		65.6	92.
8	43.2	0	69.7	73.6	78.1	81.3	83.9			-	92.	•		34.5	34.8	
8		99	1.69	73.6	78.1	81.3	83.9	87.1	4.98	91.6	6.36	72.3	2006	24.8	45.5	96
		-														

SMOS DIRNAVOCEANMET

088

155

TOTAL NUMBER OF OBSERVATIONS

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0

HOURS (L S T OCT.

CEILING							VISIA	BILUTY (ST.	VISIBILITY (STATUTE MILES)	£\$)						
(FEET)	2 1	* AI	8 41	7 1	E AI	> 2%	1 A 2	V 1%	¥1 ¥	- Al	% Al	*	Z AI	2 5/16	AI	AI
NO CEILING			43.2	44.3	46.5	47.1	-	48.4	0	6	0.16	21.0		3	31.6	.75
≥ 20000			42.8	47.1		1.	-	7		3			0	22.	:	20.
			45.8	47.1	1.64	•	-	~		3	:		•	55.		26.
16000			45.8	47.1	0	-	-	~		3	:		3	58.	56.1	56.
			47.1	0.64	-	2.	2	3		3.	0			57.		58.
170			47.7	49.7	N		100	4			-		58.1	58.		59.
			50.3	57.3	-		9	100		4			:	61.		62.
88			50.3	82.3	0			58.7		0			619	61.		63.
1			55.5		-			3		3				67.		69.
141			56.1	58.1	-					9				68.		.69
1			\$6.8	58.7	IN			-						669		0
2000			57.4	29.4	1		3			-			5	69		71.
			58.7	1.09	15		9	67.7		6			:	:		2
141		55.5	60.7	9.29	66.5	67.7	4.89	69.7	69.7	71.0	72.9		73.6	2	74.2	74.
			6119	63.9	-		6	0		2.			:	14.		0
300			64.5	66.5	-		2.	74.2		9				78.		80.
			2.69	67.1	-			74.3		9						0
500			00	67.7	N		4	75.5					0			81.
1				67.1	12.3			15.3							81.3	81.
120			9	67.7	2			76.1	76.1	6	81.3					83.
1			6009	4.89	12.9			16.8		0						83.
90			1.19	2.69	14.8			78.7	•	-			3			85.
			1.19	1.69				78.7		-				84.5	85.2	85.
8			67.1	1.69	14.8		•	80.0	0	83.2			9	86.5	87.1	87.
			67.1	1.69		-	6	80.7		83.9					87.7	88.
8			67.1	70.3	76.1	00	0	81.9	-				8	88.4	89.0	89.
		61.3	67.1	10.3	1.91	6	-	83.2		9					90.3	91.
141				70.3	76.1		-	83.9					:		92.3	92.
38			67.1	10.3	1.97	0	3.	85.0	2				•.		94.8	95.
			1.10	10.3	1.91		3	92.6	2	6		•	:		:	12.
80	30.3	61.3	67.1	70.3	76.1	800	83.0	2 20	8 5	0 0	92.9	93.6	94.8	94.3	96.0	000
1	• 1				٠,					1	. 1	-	1	٠,	1	

TOTAL NUMBER OF OBSERVATIONS

155

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0

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0

CEILING VERSUS VISIBILITY

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS) WILLOW GROVE, PENNSYLVANIA

73-77

10 OC 1

310

CEILING							VISI	VISIBILITY (STATUTE MILES)	TUTE MILE	S							
(FEET)	5	٥ ٨١	8 1	1	e Al	≥ 2%	7	V 7%	71	-	% Al	*	Z Al	≥ 5/16	AI	AI	
NO CEILING		46.5	4.84	1.64	52.9	53.0	53.6	53.6	53.6	53.6	53.0	53.0	53.6	53.	53.	6 53	6 -
200	6	6.5	52.9	• •		33	0 0	8	2	000	8		2	8	58	1	1
1 4000		6.5	52.9	54.5	57.4	58.1	8			58.1	58.1		58.1	58.	. 58.		-
> 14000		64	53.0		58.1		80		00	8	58.1	8	58.7	58.		7 58	
12000	•	50	54.5	55.5	58.7	6				6	5	0		6			*
		54.	58.7	0.09	63.2	63.9		63.6	63.6		63.9	3	63.9	63.	63.	63	6.
7 2000	-	54.	59.4	·			. 4	*		*			*			2 64	. 5
	-	56.	61.3	62.6			9			. 9	•		. 9	99	99 9	99 5	.5
2002	-	2	62.6			67.7				-				67.		7 67	. 1
1		2	63.9				.6	6		6			6	6	69	69 /	
2000	-	10	63.9	•	0.69	6	.6								7 69.	69 1	. 7
1		009	64.5	9		0	0	0		0				0	10	1	.3
111		63	0.69	71.0	74.8	75.5	75.5	76.1		9	76.1		1.07	.0	1 76.	1 76	
1		63.	69.1			9	9	0						9	16	+-	. 8
3000	-	99	72.3	14.8	78.7	19.4	0	-		-				-			.3
		67.	13.6			0	-	2.		2				2	82	8	
7 2000	-		73.6	76.1	80.0	80.7	-	2						2.	0		9.
1		4.89	14.2	B. 91		-	-			83.2			83.2	3	-	-	.2
1500	36.1	0.69	74.8	77.4		95.0	83.2	3	84.5	*	84.5				80	20	
1		1.69	75.5	78.1	83.2			85.8					85.8	5		8 85	
1000	36.1	1.69	76.8	80.0			-	0.68		0.68			6	6	œ		
		69.7	76.8	80.7	86.5		8	•		0	0	6.06		0	3 90.	3 90	
8	36.1	1.69	76.8	80.7	9	-	6	0	90.3	ċ	•		91.0	91.	0		0
1		1.69	76.8	81.3	87.1	58.4	6	91.0		91.0	:		:	-	0 91.	16 9	9.
8	36.1	70.3	77.4	81.9	87.7	6		-		-		92.3		92.	3 92.	9 92	6
1		70.3		-			2	93.6	4		*		3	94.	3 95.	2 95	
141	36.1			81.9	8	60.3	7			96.1	96.8		96.8	96	8 97.	16 97	4
1				82.0		91.0	3	1006							0	6	
30	36.1	70.3			6	91.0		96.1						6	100	2	0
8	36.1	10.3	4.11	82.6	69.0	0.14	93.0	1.06	9.96	1.86	\$ 66	4.66	7.66	66	4100	0010	0
٥	36.1	10.3	4.11		6	71.0	100	1.06			4.46			•	100	2	0

0

TOTAL NUMBER OF OBSERVATIONS

155

3466

14793

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

64.5

60.7

AI AI

AI AI

ALAI

AI AI

AI AI

ALAI

ALAI

AI AI

ALAI

A! AI

AI AI

AI AI

AI AI

90

65.2

36.8 56.8 56.8 8.0 57.4

96

130

CEILING VERSUS VISIBILITY

WAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

STATION NAME

73-77

T S 1) SENON MONTH 13

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0.0010.00100.0100.0100.010.001 0.0010.0010.0010.0010.0010.001 0.0010.00100.0100.0010.0010.0010.0010.00 98.7100.0100.0100.0100.0100.0100.0 0.68 57.4 5.69 71.0 91.0 8 * 46 97.4 4.66 6.26 1.96 65.2 76.6 87.7 64.5 85.2 81.3 83.2 85.2 56.8 56.8 56.8 60.7 67. 009 57.4 0.68 56.8 71.0 4.16 4.66 8.9 65.2 81.3 91.0 51.6 8.46 85.2 2.58 56.8 64.5 2.50 16.8 2.68 87.7 56.8 60.7 64.5 92.9 60.7 1.96 07.1 98. 57.4 91.0 51.6 71.0 65.2 94.6 56.8 56.8 64.5 87.7 6.76 50.8 64.5 16.8 4.16 4.66 4.66 56.8 81.3 85.2 83.2 89.0 89.0 89.0 5.65.2.65 1006 50.7 67.7 .09 21.0 83.2 97.4 57.4 71.0 91.0 1.86 87.7 6.26 8.46 56.8 85.2 1.96 85.2 60.7 65.2 81.3 56.9 56.8 56.8 64.5 16.8 09 * 71.0 85.4 6.76 57.4 16.8 0.16 4.76 4.66 91.6 56.8 56.8 8008 64.5 5.69 81.3 83.2 85.2 87.7 8.46 64.5 65.2 1.96 60.7 60.7 67.1 ٨١ 57.4 56.8 56.8 56.8 56.8 64.5 71.0 16.8 85.2 85.2 88.4 8000 93.6 8.76 4.66 60.7 65.2 61.3 92,3 64.5 87.1 96.1 67.1 83.2 65.2 98.1 98. ۸۱ VISIBILITY (STATUTE MILES) 57.4 71.0 4.16 93.6 98.1 85.2 56.8 56.8 56.8 64.5 5.50 2.50 85.2 88.4 65.3 8.46 95.5 21.6 60.7 64.5 6.9 81.3 83.2 87.1 80.3 96.8 98.1 98.1 67.7 98.1 ×-56.8 1.0 56.8 57.4 65.2 85.2 4.88 93.6 4.76 64.5 8.06 55.8 76.B 81.3 85.2 94. B 90.8 64.5 83.2 95.5 98.1 56.8 60.7 5.69 87.1 6.36 98.1 98.1 60.7 61. 57.4 64.5 65.2 71.0 81.3 85.2 87.1 93.6 8.46 96.8 4.16 4.46 51.0 65.2 8.06 1.96 56.8 56.8 92.3 94.8 64.5 56.8 56.8 60.7 60.7 76.8 63.2 65.2 88.4 B8.4 4.1.6 67. 7 57.4 71.0 56.8 8.95 56.8 64.5 16.8 4.16 56.8 64.5 85.2 90.3 8 . 46 96.8 45.2 61.3 85.2 87.1 92.3 93.6 8.76 1.96 65.3 67.7 83.6 .09 09 0.69 70.3 57.4 85.6 0.16 93.6 93.6 95.5 60.0 84.5 84.5 86.5 63.8 64.5 67.1 92.3 56.8 63.9 64.5 1601 95.5 80.7 87.1 62.6 62.6 63.2 0.69 10.4 83.2 91.0 51.0 65.8 83.2 85.2 87.1 65.6 65.6 65.6 55.5 56.1 58.7 5.69 81.3 88.4 7.68 8.4 91.0 92.3 55.5 85.8 1 80.0 0.08 62.6 76.8 82.6 88.4 9.79 2.69 6.18 24.8 54.8 55.5 58.1 58.1 61.9 81.3 83.9 85.2 86.5 67.7 8.4 54.8 619 6.21 86.5 R7.7 88.4 78.7 29.4 0.1/ 9.6 73.6 77.4 29.4 72.3 55.5 63.9 66.5 17.4 77.4 0.6 2.3 52.3 52.3 52.9 55.5 61.3 69.7 12.3 74.2 6.3 74.8 76.1 76.8 4.11 52.3 58.7 58.1 76.1 ٨١ 33.6 33.6 31.0 31.0 33.6 0.62 31.0 31.0 31.0 31.0 31.0 33.6 34.8 34.8 34.8 31.6 34.8 34.8 34.8 34.2 34.8 34.8 34.8 34.8 34.8 29.7 29.7 31.0 34.8 29.7 29.1 2 NO CEILING VI VI 0008 1 0008 1400 (FEET) × 20000 00 % 2000 4500 3000 1200 88 88 88 80 5000 2500 1500 88

81.3

76.8

85.2 85.2 87.7 89.0 91.0 65.6 8.46

83.2

71.0

67.

TOTAL NUMBER OF OBSERVATIONS

155

2

100

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE

FROM HOURLY OBSERVATIONS)

HOURS (L S T 9

MONTH

9116 0.09 0.09 4.16 0.09 63.9 61.3 76.1 83.2 99.4100.0100.0100.0100.0100.01 99.4100.0100.0100.0100.0100.0 0.0010.00100.0100.0100.0100.0100.0 0.0010.0010.0010.0010.0010.0010.00 85.2 87.7 92.9 94.2 87.7 67. 11 4.66 0.09 91.6 4.76 83.2 76.1 89.7 8.46 79.4 65.6 2.46 0.09 60.0 0.09 63.9 67.7 11.6 85.2 87.7 87.7 97.4 61,3 63.9 69.7 67.7 67.1 76.1 0.00 51.6 0.09 0.09 0.09 0.00 0.09 69.7 4.61 83.2 91.6 6.26 34.2 94.8 0.00 0.00 0.00 0.00 0.00 61.3 63.9 11.6 85.2 89.7 97.4 63.9 63.9 63.9 67.7 87.7 67.7 87.7 87.7 67.1 71.6 9100 4.61 92.9 4.16 61.3 85.2 89.7 2.46 8.46 4.16 76.1 69.7 83.2 4.66 4.66 57.7 87.7 67.7 ۸۱ 76.1 4.16 0.09 61.3 63.9 11.66 83.2 85.2 9116 19.4 6.76 0.09 69.7 2.46 67.7 87.7 87.7 8.96 89.7 98.7 67:1 0.09 63.9 91.6 0.09 4.16 4.16 0.09 0.09 11.6 83.2 63.9 79.4 89.7 8.46 1.69 76.1 85.2 2.46 61.3 87.7 67.7 87.7 92.9 98.7 67.1 67.1 ۸۱ 63.9 91.6 63.9 63.9 87.7 51.6 0.09 0.09 69.7 71.6 76.1 79.4 4.16 98.7 8.96 61.3 67.7 83.2 2.76 2.46 8.96 98.1 87.7 67.7 67.1 85.2 89.7 92.9 98.7 ٨١ VISIBILITY (STATUTE MILES) 0.09 8.96 1.36 4.61 61.3 11.6 83.2 89.7 2.46 1.86 0.09 0.09 0.09 0.09 67.7 76.1 85.2 87.7 91.6 8.06 97.4 98.1 63.6 57.7 92.3 92.9 1.69 87.7 93.6 94.2 89.7 61.3 0.09 1.92 91.6 4.16 4.76 60.0 60.0 60.0 60.0 83.2 87.7 0.09 63.9 63.9 63.6 71.6 4.64 4.16 4.16 67.7 69.7 93.6 1.96 85.2 8.96 96.1 67.7 87.7 87.7 67.7 67.7 77 93.6 51.6 0.09 91.6 96.1 0.09 92.3 79.4 85.2 93.6 1.96 0.09 61.3 63.9 71.6 83.2 89.7 96.8 97.4 69.7 76.1 76.1 87.7 67.7 67.7 ۸i 916 93.6 0.09 63.9 11.6 93.6 0.00 60.00 60.00 61.3 62.6 63.9 63.9 4.61 83.2 85.2 1.69 96.1 96.1 96.8 97.4 92.3 67.7 87.7 67.7 67. 69 87.7 0.09 91.6 0.09 63.9 61.3 71.6 83.2 85.2 93.6 69.7 76.1 4.61 93.6 95.5 95.5 96.1 67.7 87.7 89.7 92.3 67.7 87 96.1 96 66.5 67.7 96.1 ۸I 62.6 66.5 63.4 6.01 74.8 83.2 85.3 91.6 91.6 0.09 85.8 91.6 66.3 89.7 9116 91.6 91.6 58.7 78.1 87.7 90.3 91.6 58.7 58.7 58.7 81.3 91.6 ٨I 74.2 65.8 58.1 87.7 51.0 58.1 59.4 80.0 61.9 86.5 61.9 619 77.4 84.5 88.4 65.8 67.7 84.5 89.7 89.7 58.1 39.7 89.7 65.8 69.7 81.9 89.7 89.7 29.4 59.4 78.1 62.6 2.69 10.4 81.9 81.9 56.1 56.8 65.6 63.9 72.9 74.2 78.1 0.65 62.6 81.9 81.9 81.9 56.1 56.1 56.1 76.1 81.9 81.9 80.7 80.7 ٥ ۱۸ 34.5 39.4 39.4 0.04 34.2 34.8 34.2 34.2 34.8 34.2 34.2 35.5 37.4 34.2 34.8 40.7 40.7 40.7 40.7 30.3 40.1 40.7 40.7 40.7 40.7 40.7 40.7 40.7 40.7 1.04 40.7 .0 2 NO CEILING 18000 (FEET) × 20000 12000 000 000 000 2000 80 900 3000 2000 1200 88 4 50 6 60 6 60 800 88 88 88 AI AI AI AI AI AI ALAI 11 11 AI AI AI AI AI AI A AI AI AI AI AI ALA AI AI AI AI

155

3411

TOTAL NUMBER OF OBSERVATIONS

DIRNAVOCEANMET

SMOS

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

19 100

CEILING							VISI	VISIBILITY (STATUTE MILES)	ATUTE MILE	(\$3						
(FEET)	0 1	٥ ٨١	80	7 1	E AI	≥ 2%	12.2	VI 72	VI 72	ĀI	% Al	*	Z AI	≥ 5/16	AI	O AI
NO CEILING	35.1	52.		56.8					57.4	57.4		57.4	31.4	51.04	37.64	57.4
× 20000	39.4	59	2	63.9	*		3	2	2		2	2	65.2	3	2	65.2
V 18000	39.4	23	•	•					5		3			•	65.2	65.2
00091	39.4	29	9.79	63.9	64.5	64.5		65.2	'n	5	3		2	2		65.2
7 14000	39.4	09	63.2	•	5				0	5	3	3.	95.8	5		65.8
17000	39.4	61.	64.5	65.8		-			4.89	4.89		4.89	4.89	4.89		68.4
10000	40.7	64.	4.89		2.						5		13.6			73.6
8 8	40.7	64.	68.4	70.3	72.3	72.3		73.6			3	73.6	73.6	73.6		73.6
	40.7	65.	1.69		4				5			5				75.5
1 41	40.7	65	69.7	71.6	4	74.2	74.8	75.5	75.5	75.5		75.5	75.5	75.5		75.5
1	41.3	99	70.3	72.3	4			1 -		9		0		0		76.1
8 8	41.3	67.	71.0	73.6	9	76.1		77.4				77.4		77.4	77.4	
	6.14	58			0	6	1	0		80		8				78.1
8 8	41.9	69	73.6	76.1	0	78.7	79.4	80.0				80.0		80.0	:	80.0
	42.6	12.		19.4	-	-	2	3.		3				3	83.2	83.2
300	43.2	74.	78.7	81.3	3		*	-		5		3		S		85.2
	44.5	76.	0		5		9	-				-		-		87.1
700	44.5	76.	80.7	83.2	-	87.1	-	4.88		8		88.4		88.4	88.4	88.4
1	44.5	16.	1.09	83.2			-	8				8		88.4	88.4	88.4
141	44.5		80.7	83.2	87.1	87.1		98.4	88.4	88.4	88.4	8	88.4		88.4	88.4
	45.2	-	~	86.5			-	-						-	:	911.6
1 11	45.2	77.	83.2	87.7	-		~	6.26				N	6.26	6.26	6.26	92.9
	45.2	1	83.2	87.1	-					3						92.9
8	45.2	77.	83.9	80.0	2.			•		2.76		2.46	2.46	*	:	94.2
	45.2	1	83.9	0.68	2.		5			*		2.96	7.46	*	:	94.2
8	45.2	77.4	83.9	89.7	3		*	95.5		95.5		1.96	1.96	1.96	1.96	96.1
	45.2	17.4	63.9	89.7	3					5	.0		1.96		1006	96.1
1 11	45.2	77.4	83.9	89.7	93.6	93.6	94.5	95.5	96.1	1.96		8.96	96.8	8.96	•	96.8
	45.2	18.	65.2	0.16	*			96.8		4.66		1.86	1.86	98.1	98.1	98.1
8 8 1 A 1	45.2	78.1	85.2	0.16	3	8.46	š	96.8	4.16	97.4	8	1.86	7.86	4.66	4.66	99.4
1	45.2	18.	85.2	0.16	94.8	8. 46	3.56	96.8	4.16	1.86	4.66	4.66	39.4	00.00	0000	0000
1 11	45.2		85.2	91.0	8.46	8.76	98.5	8.96	4.16	98.1	4.66	4.66	14.66	00.00	00.00	000

2880

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

73-77

22 22 HOURS & S. S. T.

RENCE	
PERCENTAGE FREQUENCY OF OCCURRENCE	(FROM HOURLY OBSERVATIONS

CEILING																
(FEET)	0 41	9	\$5 A1	4	e VI	≥ 2%	7 7	VI 7%	¥1 VI	- -	% Al	*	X Al	≥ 5/16	× ×	AI
NO CEILING	36.1	54		59.4	-	61.3	2.	2.	2.	2.	2.		2	62.6	2.	62.
≥ 20000	40.7			64.5	66.5	66.5	67.7	67.7			1.	67.7	-		-	
	40.7	53		. 4	.0	. 9	-	67.7		7.				67.7	:	67.
14	40.7	59.		*		66.5		67.7				67.7		-	67.7	67.
	40.7	09		65.8			6	6		6	6		6		6	69
12000	40.7	00		65.8		67.7	6			6	6		6	6	6	
	43.2	54.			2	12.3	3.				3					73.
000	43.2			70.3	72.3						73.6	73.6	73.6	73.6		73.
1	43.9						9	•			0	9	0			76.
7000	43.9	66.5	69.0	72.9	74.8	74.8	76.8	77.4		77.4	7	-	77.4		•	77.
1	43.9			3		5	-	8		00						78.
800	44.5			76.1			0	0			0	0	0	0	80.7	80
1	45.8					6	:	-		-	-	-	-	-		
1 1	46.5	71.0		78.1			-	2.		2	2.	2.	3			
	47.7	72.3		6		2	*	2		5	3.		3		85.2	
3000	47.7	72.3		0.08		93.5		85.8			3		3			
	47.7	72.3		80.7		3	5	6		9	9		0		86.5	86.
2000	47.7	72.3		80.7			-	7.		-	-		-		87.7	
	47.7	72.9		-		3	-	8					0	8	86.4	
8	47.7	72.9		81.9		83.8	8				6	0	6	6	•	89.
	48.4	74.2		•			1	-		-	-		:	-		
8	48.4	75.5		88.8		89.7	2			3	3	93.6			93.6	63.
	48.4	75.5		5		89.7	-	*					*	*		. 76
8	48.4	75.5	80.7	85.8	89.0	1.68	93.6	;	94.2	2 . 4 6	94.8	94.8	;	8.76	8.46	
	48.4	15.5			6		3			4	*		*	*		94.
8	48.4	75.5	80.7	85.8	•	90.3	*	94.8		4	3	95.5	2	3	95.5	95
	48.4	75.5		9	.0		5			9	0		0			96
8	48.4	75.5	80.7		0			96.1	.9	96.1	•			.0		
	48.4			86.5		91.6		8.96	8.96	1.	1.86	80			1.86	98.
1 30	48.4	75.5	80.7	86.5	0		3	4.16		98.1	1.86	98.7		•	4.66	66
91	46.4	15.5	80.7	0	6006	41.0	6.56	4.16	4.16	98.1	1.86	1.86	1.86			66
	7 87		2 20		1	•				4						

TOTAL NUMBER OF OBSERVATIONS

154

1119

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

14793

5224

WILLOW GROVE, PENNSYLVANIA

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL 100

Ē

CEILING							SIA	IBILITY (ST	VISIBILITY (STATUTE MILES)	(\$)						
(FEET)	2 1	o Al	8 41	4	E 41	2 2%	7 1	VI 7/2	VI 71	- AI	₹ Al	# AI	S.	2 S/16	AI	AI
NO CEILING	31.5	48.4			53.4	53.1				3	55.0	:	55.0	-		55.
≥ 20000	33.6	52.7	•		00		6	6	6	0		•		ċ	•	
	9.	52.7		9			•		6	ċ						909
16000	9	52.7			00		6	6	6	ċ				0		009
	9.	53.1		0			6	0		0						61.
₹ 12000		53.6	2005	-	6	600		61.1	:	-				-		
	.2	57.3		-	*		5	5	•	3						
000	.2	57.3					3	2	5	•				6		66.7
	3	2.09		3					0	0				0		
7000	.5	4.09		K.			6	6	6	0				0		
	36.7	0119		9				0		0						•
2000	6	61.9		-	6		-	-	:	2				·		
	*	65.0		×			2	3		3.				5		
141	.2	65.1		-	3		3	5	•	•				•		77.
		1.99		3			-		80	8				6		
300	0	68.2		5	•		6	0	0	-				-		81.
	-	2.69					-	:	:	2.				5		
2000		8.69			0		2	3	3	-				4.		34.
	4	1001					2		3	4				4.		85.
1 71	9	70.7		6	2.		*		;	5				6		
1		11.5		0			3	9	0							88.2
8		71.9	17.9		5	86.5	87.5	8	œ			89.8		0	3006	
		72.1					8		6	6				0		06
8	0	72.1		2	•		6	6	0	0				-		92.
	6.	72.3		2.			6	0	0	-				2		92.
8	0	72.3		2.	-		3.06	-	-	2				3		93.
	6.	12.4		3			-	2	2	3.				4		95.
8		72.5		3	-		91.6	2.	3					5	•	96
							5.	*		2.				-		97.
300	40.9	72.7	19.4	83.6	88.2	2.06	95.0	3.46	94.6	1.96	6.16	97.3	1.16	98.0	4.86	98
8		12.1	7.61				95.6	3	;					200		66

TOTAL NUMBER OF OBSERVATIONS

1240

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

DI HOURS (LST) NON

PEET) PEET	V C C C C C C C C C C C C C C C C C C C	50.0	7	× 3	≥ 2%	4 6	2 1%	71 7	-	N Al	*	γ AI	2 5/16	AI	AI
000000000000000000000000000000000000000	000000000000000000000000000000000000000	50.	-	0	-	2		-				-			
0 8 8 9 9 M M 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		- ,		51.3	>4		52.0	52.7	2	52.7	25.7	52.7	52.7	520
18000 188 18000 188 18000 189 189 189 189 189 189 189 189 189 189	600 4 3 2 3	. 5	3.5	2	*		24.				0		•	•	20.
16000 334 12000 334 12000 43 9000 45 7000 46 6000 46 46 6000 46	000000000000000000000000000000000000000		23.3		0.00	1.00	24.	1.40	•	22.5	20.0			20.0	200
14000 39. 12000 43. 9000 43. 9000 46. 7000 46.	500.00		3.3		•			*	2	55.3	•	0	25.0	•	26.
12000 39. 10000 43. 8000 46. 7000 46. 8000 46. 8000 46.	4000		1.		55.3	20.0	26.0	26.0	•	26.7	57.3	•		57.3	57.
10000 4 3 9000 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	600		56.0	26.0	56.7	57.3			8		58.7	8		58.7	58.
9000 7000 7000 6000 6000 6000 6000 6000	9 60		61.3	61.3	0.20	2.	62.7		-	3				0.00	64.
8000 7000 6000 6000 7000 760 760 760 760	44		1.3	61.3	0.20	62.7	62.7		63.3	63.3	0.49	64.0	0.49	0.49	64.
7000 4 6 6 5 5000 4 8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		65.	66.0	0.99		-	67.3		ap.		68.7	80			68.
2000 2000 4 4 6 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8	69.		6.7	66.7	67.3		0.89			68.7	69.3	69.3		69.3	69
4890 48	7 66.	67.	0	0.89		6	6				0	0		70.7	0
4500 48	68.	69	70.07	0.07	70.7		71.3				72.7	72.7		72.7	72.
-	68.	69	1.	0		2.	2		2		13.3	3			73.
4000	7 710	72.		14.0	74.7	3	75.3					76.7		76.7	10.
3500 49	3 72.	73.		3		9	9		1.		8		0		78.
> 3000 52	0 75.	16	0	78.7	79.3	80.7	80.7	80.7	81.3	81.3	82.0	82.0	2.		82,
2500 32.	5 76.	76.		0	0	1	81.3		2.	2.	82.7	2	2.	82.7	82.
2 2000 53.	3 78.		80.7	81.3	82.0	83.3	83.3	83.3		84.0	84.7		*	84.7	84.
1800 53.	3 78.	1	80.7	81.3		3.	83.3		*		84.7	84.7		84.7	84.
× 1500 53.	3 78.		81.3	82.7	83.3	84.7	85.3	85.3	86.0	86.0	86.7	86.7	86.7	86.7	86.
1200 53.	3 78.	1	81.3		0.48		86.0		9		87.3				87.
1000	3 79.		84.0	86.0	86.7	88.0	88.7		89.3	89.3	0.06	90.0		0.06	90.
53.	3 79.		0		66.1		86.7								90.
23.	3 79.		84.0	86.0	86.7	98.0	88.7				90.0	0.06	90.0	0.06	90.
700 53	3 79.	1	0.	0			89.3	89.3		0.06	1006	0			90.
600 53	3 79.	82.	84.7	85.7	87.3		1.06		91.3	:	92.0		2	92.0	92.
500	3 79.	1	84.7	87.3	0.88		61.3				45.7			92.7	92.
2 400 53	3 79.	82		88.0	88.7	61.3	92.7	3			0.46	0.46	;	0.46	34.
300 53	3 79.	82.	84.7		88.1		63.3	93.3	1.76	1.76	65.3		3	65.3	95
2 200 53.	3 79.		84.7	8	88.7				1.96	1.96	97.3	61.3	97.3	0.86	98.
100 53.	3 79.		84.7	0.88	68.7	45.7	65.3	65.3	1.96	1.96	97.3	97.3	97.3	0.86	98.
0 53.	3 79.	82.			88.7	92.7		3	9		97.3	97.3	97.3	•	

150

TOTAL NUMBER OF OBSERVATIONS

2000

0

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

14793

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0.4 HOURS (1.5.7.) NON

CEILING								VISIBILITY (STATUTE MILES)		â						
(FEET)	5	9	\$ 1	1	AI	> 2%	7 Al	71 %	71 71	-	*	*	Z AI	≥ 5/16	AI	٨١
	34.7	52.0	53.3	53.3	54.0	54.0	24.0	54.0	24.0	54.7	54.1	54.1	55.3	55.3	50.0	56.0
20000		23.3	24.	*	0	0		-	-	o.	•		200		:	51.0
18000		53.3		24.	200	500	23.3	500	500	2000	20.00	20.00	30.	200	57.3	51.9
		53.3	24.	3		2	3			0	•	•	•	0	•	500
		53.3	24.1	54.7	55.3	55.3			55.3	26.0	20.0		•	0	51.3	57.3
2 12000		53.3	54.7	54.7	3	3	i		5		•	•			•	57.3
		59.3	1.09	2	-		1	:	:	3	2.	2		63.3	•	0.49
000		59.3	60.7	o	61.3	61.3	61.3		61.3	62.0	2		3	3	0.49	0.49
1		0.49	65.3		9	9	0		6.	9				8	68.7	68.7
141	42.7	64.7	0.99	0.99	66.7	1.90				-	(3)	68.0	3	68.7		69.3
1	44.7	0.89	69.3	6		0	0			0		-			72.7	72.
2005	45.3	70.0	71.3	•		2	72.7			3		•			75.3	75.3
1	0.64	72.0	13.3						*	2		6		1		11.3
1 41	40.7	74.0	75.3	75.3	76.0	76.0	76.7					78.0		-	79.3	79.3
1	49.1	14.0	15.3				:					8		9.3		
3000	48.7	76.0	78.0	78.0		80.0	80.7	80.7	80.7	81.3	3	2	2	2.7		83.3
1	48.7	16.0	18.0		6					-	82.0	82.0	2.		83.3	83.3
1 2000	66.3	77.3	79.3		0		2			*	•	;	•	5.3		86.0
1	20.0	78.0	30.0	80.0						84.7	85.3			0.98	86.7	86.
1500	20.0	78.0	80.7	80.7		62.7	84.0	84.0	84.0	85.3		•	0	•		87.3
	20.0	78.0	80.7		5		3	84.	3		9			-		88.0
000	50.0	78.7	81.3	81.3	83.3		•				8					89.3
08	20.0	78.7	81.3	81.3			96.0	86.0		87.3	88.0	88.0	8	88.7	89.3	89.3
8	20.0	78.7	82.0	82.0	84.0		•		•			00	6			90.0
	20.0	19.3	82.7	3			87.3				6	0	0	0.06		06
8	20.0	79.3	82.7	82.7	84.7	85.3	87.3		-	88.7	89.3	89.3	0			90.
	20.0	19.3		83.3	85.3		8				:	-	7	•		92.
8	20.0		83.3	83.3	85.3	86.0	88.0		0	91.3	5.	92.0	92.7		93.3	93.3
	20.0			83.3		0.98	88.0		0.06		92.1	1.26	3.	93.3	0.46	0.46
N 200	20.0	•		83.3	85.3	•	88.7	0	0		0.46	0.00		1006	95.3	95.3
8	20.0	6	83.3	83.3	65.3	86.0	89.3	90.7	91.3	93.3	94.1	74.1	0.00	0.96	97.3	98.0
	0.00	•	63.3	83.3	85.3	•			71.3				•	77.3	1006	0001

150

TOTAL NUMBER OF OBSERVATIONS

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MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANTA

07 HOURS (1.8.T.) NOV

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PERCENTAGE FREQUENCY OF OCCURRENCE

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ROM HOURLY OBSERVATIONS		
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FEET) 2 10 CEILING 22, 18000 24, 18000 24, 14000 25, 12000 25, 19000 28, 9000 28,	V		VI 444 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	23 46.0 50.7 50.7 52.0	1 2%	72 46.7 51.3	47.3 47.3 52.0	¥1 Y	- AI	× 4	*	2 .		AI .	0 11
22 22 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	000000000000000000000000000000000000000	mococmoco-nn	00000	9		2.			8		8	8	ļ	
22 22 25 24 25 25 25 25 25 25 25 25 25 25 25 25 25	2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3	000000000000000000000000000000000000000	0000000000000000	0000		-	2.	•	48.0					0.84	48.7
18000 24. 16000 24. 12000 25. 12000 25. 9000 28.	1 1 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	00000000000	000000000000	000	•	•		•		53.3	53.3	53.3	53.3	3	54.0
16000 24 12000 25 12000 25 9000 28	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0 4 4 5 6 4 6	0000000-004	0 %	20.1	:	52.0	52.0	3.	3	53.3	3.		3.	54.0
14000 2.5 12000 2.5 10000 2.8 9000 2.8	4 4 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	ww.rorwor	0000000000	2.	50.7	51.3	52.0		53.3		53.3	53.3	53.3	53.3	54.0
12000 25 10000 28 9000 28	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	W-LOLWOL	mp 00 00 00		52.0	2				*	54.7	4	54.7		55.3
10000 28. 9000 28.	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		00000000	55.3	55.3	56.0	56.7		58.0		58.0	58.0	58.0	58.0	58.7
9000 28	20000	rormor	000-00		60.7				3	3			3.	63.3	64.0
.62 mm	2000	01 401	00-100	2.09	60.7	61.3	2	N		63.3	63.3	63.3	63.3		0.49
	2000	r or	0-1001	62.1	62.7		4		8	2				3	0.99
2 7000 29	3 54.	201	- 2021		63.3	3	64.7	4		0.99				0.99	66.7
.62	3 54.	0	201	0.49	0.49	;		5	9		100		66.7		67.3
> 5000 59	3	1.	24	1.49	64.7		66.7		68.0	0.89	68.0	68.0		68.0	68.7
30.	200		7	65.3	5		1	-	2		8		68.7		69.3
4000	7 56.	0	•	•	66.7		68.7		70.0	70.0	70.0				71.3
31.	3 58.	.3	5		00	0	0	0	2.	2.	2.				73.3
33	3 60.	0	00		71.3	73.3	74.0	74.0	75.3	75.3	75.3		75.3	75.3	76.7
33.	3 62.		-	4		-	8	80	6	6					
7 2000 34	7 64.	70.0	73.3	0	77.3	•	0	0	81.3	-	81.3		81.3		82.7
34	7 64.		73.3			6	0	0	-	-	-				
1500 35	3 65.	72.0	75.3	78.0	79.3	81.3			83.3		83.3		83.3	83.3	84.7
1200 35.	3 66.	12.7	0.91		81.3		*			2	85.3	85.3		85.3	
> 1000 35	3 66.	72.7	76.0	19.3			85.3	85.3	86.7	86.7	86.7		86.7	86.7	88.0
35.	3 66.	12.7	16.0	26.64	62.7	84.7	5		86.7	0	86.7		86.7		88.0
35.	3 66.	73.3	76.7	80.0	83.3		86.7		88.0	88.0	88.0		88.0	88.0	89.3
700 35	3 66.	73.3	76.7	80.0	63.3	85.3		0		88.0	88.0			•	89.3
92	3 66.	74.0	77.3	80.7	84.0	86.0	87.3	87.3	88.7	88.7			88.7	88.7	90.0
35.	3 66.	0.4/	17.3	80.1	0.49		88.7	80	0	40.7	400			1006	92.0
400 35	3	74.0	77.3	80.7		86.0	88.7	8	0.06	1.06	61.3	-	91.3	91.3	92.7
300 35	₹ 66.7	0.41	17.3	1008	0.40	86.7	0.06			95.0	45.7	1.76	92.7	45.7	0.76
2 200 35	3 66.	74.0	77.3	80.7	84.0	86.7	•	0	91.3		93.3	63.3	0.46	;	95.3
100 35	3	0.4	6.11		0.48	86.7	0	•	:		0.56	_	95.3		98.0
1 35	3 66.7	74.0	77.3	80.7	84.0	86.7	0.06	0.06	91.3	92.7	0.46	94.7	95.3	0.96	0000

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TOTAL NUMBER OF OBSERVATIONS

- opopment mopoment opopor open

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

NOV HONTH

CEILING							VIS	BILITY (ST	VISIBILITY (STATUTE MILES)	ES)						
(FEET)	5 71	o Al	8 41	4	E 41	7 2%	2 4	YI %	¥1 Y1	Ā	% Al	*	N %	2 5/16	N NI	AI O
NO CEILING	7.52	42.7	46.0	6.00	46.0	53.7	46.7	46.7	46.7	46.7	46.	540.	40.7	54.0	46.7	46
	1		2	2 2	2	2 2		3		3						34
14000	23.3	48.7	2	52.0	52.7	2	53.3	53.3	53.3	54.0	54.0	54.0	54.0	54.0	54.0	54
			7	2.	52.1	2	3	3.		4	*					54
> 12000	23.3	50.0	;		55.3				56.7			-	-	57.3		57
			0		:		5	2.						3		
000	24.0	55.3	0.09	1.09	61.3	2	52.7	2.	62.7			3		63.3	63.3	63
			2.	2	3.			*	64.7	3						65
141	*		2	63.3	64.7	30	0.99							66.7		99
1	*		3	64.0				0						67.3		
2000	*		9	66.7		80		6	0	0		0		70.0		5
1	*		8		0		-	1:		2						72,
88	-		0	70.7	72.0	2	73.3	73.3	19	3	74.0	74.0		74.0		2
	6		1		3	4.	3	*		5				5		13
3000	0	67.3		75.3	76.7	-	78.0	8	78.0	78.7						4
1 -	0		4		78.1	6		0	80.0	0		0				81.
500			'n		80.7	2	3	2				83.3				84
	-				80.7	2.		7				•				84
1500		70.7						84.7	84.7	5		85.3		85.3		86
1	8	1001	9			4		*								86.
90	8.7	70.7	1.	82.0	84.0	5	•		. 9	-		-	87.3		-	88
	8.7	70.7			*	. 9						8		88.0	8	88
8	8.7	71.3	*	84.0	0		0	0	40.4	-		61.3			=	92
	8	11.3	8		0	8		0		91.3		-		91.3	-	92
8	28.7		6	84.7	86.7	8	-	91.3	91.3		2	92.7		92.7	3	93
8	00	2	0		:	6	2	2	92.7		*			44.7	:	95
141			0	83.3	87.3	89.3	92.0	2.		94.7	5		0.96	96.0	0.96	96
			0	85.3	:	6		93.3	93.3	2	0.96	1.96			-	98
38			0	85.3	87.3	89.3	92.7	3.	93.3			-			8	
8	28.7	12.0	0.08	85.3	87.3	69.3	92.7	93.3	93.3	95.3	61.3	0.86	1.86	98.7	66.3	100
			,	•												

TOTAL NUMBER OF OBSERVATIONS

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

13 NON

2 =

CEILING							VISI	BILITY (STA	VISIBILITY (STATUTE MILES)	(\$)						
(FEET)	5 7	o Al	\$ 41	7	e Al	2 2%	~ Al	VI %	VI VI	-	N AI	*	AI Z	≥ 5/16	VI X	٨١
NO CEILING		39.3	41.3	41.3		41.3	41.3	41.3			41.3	6.14		41.3	41.3	611.3
> 20000		44.0	46.0	46.0	46.0	0.94	0.94	0.94	0.94	46.0	0.95	46.0	46.0	9	0.94	46.0
N 18000		0.99	0.95	0.94	0.94	0.94	9	0.94	0.94	0.04	0.94	0.95			46.0	46.0
2 16000		0.44	0.95	0.94	0.94	46.0	0.94	0.95	0.04	46.0	40.0	46.0		46.0	0.94	46.0
		0.44	:	46.1	1.07	46.1	0	49.1		46.7	46.1	1.04	46.7	46.7	1.07	46.7
7 12000		0.95	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
1		53.3	:	56.0	56.0	26.0	9	56.0				26.0	56.0	56.0	26.0	56.0
000		53.3	56.0	96.0	86.0	0.95	56.0	26.0	56.0	56.0	26.0	26.0	56.0	56.0	26.0	56.0
1		58.0	:	60.7		100	ċ	1009	60.7						60.7	60.7
141		59.3	62.0	62.0	~	62.0	62.0	62.0	62.0	2	62.0	62.0	62.0	2.	0.29	62.0
1		62.7		0.99	9	0.99	9	0.99	9	9	0.99		999	9	0.99	0.99
8 8		62.7	65.3	0.99	66.0	66.7	1.99	66.7		66.7	66.7	1.99	66.7	9	1.99	66.7
1		64.7			30	68.7	8	68.7	0	20	68.7	.89	68.7	8		68.7
1 11		66.7	69.3	70.0	0	70.7		70.7	70.7		70.7	10.	70.7	70.7	70.7	70.7
		10.01	72.7	73.3	3	0.7/	3		*	4	0.5/	14.	74.0	4.	74.0	74.0
308		74.0	76.7	78.0	78.0	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3
1		76.7	79.3	80.7	0	2	2.	7			82.0	82.0	82.0	2.	82.0	82.0
300		78.0	81.3	0.48	84.0	65.3	85.3	85.3				85.3	85.3	5		85.3
		79.3	82.7	85.3	3	16.7	9	86.7			86.7	86.7	86.7	86.7	86.7	86.7
1800		79.3	83.3	86.0		87.3		87.3			87.3	87.3	87.3	87.3	87.3	87.3
ſ		80.7	84.7	87.3	8	68.3	6		2		89.3	89.3	89.3	6	89.3	89.3
1 1 1		81.3	86.7	89.3	0.06	92.0		95.0	92.0	92.0	95.0	95.0	92.0	92.0	92.0	92.0
		81.3	86.7	69.3	0	92.0		0.26			95.0	0.26	92.0	2	0.26	92.0
8		81.3	87.3	0.06	0	92.7		93.3			93.3	93.3		3	63.3	93.3
1		82.0	88.0	40.1	-	93.3		0.46	4		0.96	0.46	0.46		0.46	0.46
8		82.0	88.0	1.06	92.0	0.46	*	69.3		95.3	95.3	95.3	95.3	95.3	65.3	95.3
1		82.0	88.0	1.06	92.7	1.76		1.96		1.96	1.96	1.96	96.7	1096	1096	96.7
8		82.7	88.7	91.3	63.3	6.56	1.96	0.86	0.86	98.0	0.86	98.0	98.0	98.0	0.86	98.0
		82.7	88.7	61.3	3	6.66	1.96	0.86		0.86	3	0.86	98.0	00	48.7	98.7
, S		82.7	88.7	61.3	93.3	88.3	1.96	0.86	0.86	98.0	98.0	0.86	98.0	98.0	1.86	98.7
8	29.3	82.7	88.7	61.3	63.3	95.3	1.96	0.86	0.36	0.86	98.0	0.86	66.3	66.3	0.00	00.00
١٨١	•	82.7	88.7	91.3	63.3	95.3	1.96	0.86	98.0	98.0	0.86	0.86	66.3	86.3	0000	000

TOTAL NUMBER OF OBSERVATIONS

150

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

14793 MILLOW G

MILLOW GROVE, PENNSYLVANIA

1A 73

73-77

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PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

EARS

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NOV HONTH 16

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	٨١	40.		54.		56.	62.	62.	99	67.	68.	68	69	7:	75.	80.	83.	85.	85.	88.	88	92.	92.	93.	93.	. 76	95.	96	97.	66	00	
	× 1	240.0	•	54.7	55.3	56.7		62.0	9	67.3	00	68.7	69.3		75.3		83.3	85.3	1	88.0	88.7	95.0	92.7	93.3	3	1.46	95.3	2.96	97.3	66.3		100.001
	2 5/16	0.99		54.7	55.3	56.7		62.0		67.3	0.89	68.7	6		5	C	83.3	2	85.3		88.7	95.0	92.7	93.3	93.3	94.7	95.3	1006	97.3	•	86.3	
	Z Al	54.0	-	54.7		56.7	7	62.0		67,3		68.7		:	3			85.3	3	88.0	88.7	95.0	1.76	93.3	93.3	24.7	95.3	96.7	97.3	0.86	98.7	98.7
	*			54.7	3	0		65.0		67.3		8	6	71.3	3			85,3		8		92.0		93.3		4	95.3	1.96	81.3	98.0	186	98.7
	% Al		•	54.7	3					67.3		1.89		:	5		83.3	85.3	85.3		88.7		~	93.3	3			1.96	61.3			98.7
S	-	0.94		24.40	55.3	56.7	62.0	62.0	1.99		0.89	68.7		71.3	5	19.3	2		84.7	87.3	88.0	91.3	92.0	92.7	92.7		64.7	0.96	1.96		61.3	97.3
TUTE MILE	¥1 %1	0.94	•	54.7		1.98			66.7		0.89	68.7		71.3		79.3		84.7	84.7	87.3		91.3	92.0		45.7	0.46	2.46	0.96		97.3	•	97.3
VISIBILITY (STATUTE MILES)	۲۱ ۲۲	0.04	•	24.7	55.3	56.7	0.29	65.0	1.99		0.89	68.7		71.3	15.3	19.3	82.7	84.7	1.08	87.3	•	91.3	0.26	45.7	45.7	0.46	1.46	0.96	1.96	97.3	6.16	97.3
VISIA	2 7	46.0	:	: 4	8	56.7	62.0	62.0		67.3			6	71.3	5	79.3	82.7		84.7	87.3			0.26	92.7	92.7				95.3		0.96	.0
	> 2%	0.94	•	54.7		56.7	2	62.0	1.99	67.3		68.7	69.3	71.3		19.3	2	84.7				51.3		92.7	92.1	92.7	92.1	63.3	93.3	0.46	•	0.46
	e Al	46.0	:	54.7	55.3		2.	65.0			0.89		6	71.3	5	78.7	82.0	*	84.0	1.98	87.3	0.06	1.06	61.3	91.3	91.3	6116	92.0	95.0	95.0	•	92.0
	4	0.04	•	54.7	55.3	56.7	62.0	62.0	66.7	67.3	0.89	68.7	69.3	711.3	15.3	78.7	82.0	84.0	0.48	86.7	87.3	89.3	0.06	40.4	1.06	2006	1.06	91.3	91.3	91.3	91.3	6116
	\$ 1	46.0	:	24.7	2	56.7				67.3						8	-			96.0		88.7		0	0	ò	0	0	0	•	0	0.06
	o Al	4.4	•									65.3			1001	73.3		78.7		78.7	19.3		81.3							81.3		
	5 1	200	3 0	20.0	0	0	0			21.3								24.7				25.3									5	25.3
CEILING	(FEET)	NO CEILING	2000	18000		12000		000		1 1 2000	1	2000		0004	1	3000	1	7 2000		1300		100		88		8		8	1	8 3		141

TOTAL NUMBER OF OBSERVATIONS

150

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NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

NOV

61 61

•		
YEARS	OCCURRENCE	(ATIONS)
	PERCENTAGE FREQUENCY OF OCCURRENCE	(FROM HOURLY OBSERVATIONS)
STATION NAME	PERCENTAGE	(FROM P
STATION NAME	_	

TOTAL NUMBER OF OBSERVATIONS

150

188

SMOS DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

73-77

22 HOURS (L S T .) NOV

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING																
(F2ET)	5 1	9 Al	8 11	4	e Al	> 2%	7	VI VI	¥1 ¥1	-	% Al	*	% Al	≥ 5/16	AI N	٨١
NO CEILING	9		53.3	3	4		3		94.0	4.			4	4		54.
₹ 20000	-		58.7	59.3	6	59.3	59.3	56.3	59.3		•	•	0	0	0.09	60.
	41.3	1	58.7	29.3		29.3	59.3	58.3	6	.6		0.09	90.0	0	0.09	
14000	41.3		58.7	56.3	59.3	59.3		29.3	59.3	59.3		0.09	0	0	•	09
A 14000	45.7	1	1.09	61.3	61.3	61.3	-		-	61.3	0.29				7	
17000	43.3		-	62.7	~	62.7	62.7	62.7		62.7	63.3	63.3	63.3	63.3	63.3	63.
	45.0		1-	0.99	0.99	0.90	0.99	66.0		0.99			100		200	
8	46.0	64.7	65.3	66.0	2	0.99	0.99	0.99	0.99	0.99	66.7	66.7	66.7	1.99	1000	66.
1	47.3			0.89	68.0	0.80		0.89			1.89	8	1.09	68.	68.7	
1 41	48.7		-	69.3	69.3	69.3	69.3		0	69.3	20.0		10.0	-		10.
1	48.7	1		69.3	69.3	69.3					10.0	0	0.01			
200	49.3		70.0	70.7	71.3	71.3	71.3	71.3		-	72.0	72.0	72.0	1	72.0	72.0
	25.7	1	0.4/	15.3	16.0	0	-		0			0	10.1			76.
141	53.3		76.0	78.0	78.7	78.7	78.7	78.7	78.7	78.7	•		79.3	79.3	79.3	19.
1	24.0		1001	18.1	19.3	6.61	-			19.3	80.0	80.0	80.0	20	0	80.
300	54.7		78.7	80.7	81.3	81.3	81.3	81.3	81.3	81.3		3	85.0	3		82.
1	24.7	1	0.08	82.0	62.7	2.1	-	82.7	82.7	2	83.3	83.3	83.3	-		94.
200	55.3		80.7	83.3	84.0	84.0		84.0		84.0		84.7	2	8	85.3	85.
	55.3		1 -	83.3	84.0	0.00	*	0.48	84.0		84.	34.7	84.7	84.7		85.
141	58.3	79.3	80.7	84.0	84.7	84.7	84.7	84.7	84.7	84.7	85.3	85.3	85.3	2		86.
1	26.7		33.3	86.7	-	87.3		87.3	87.3	•	88.0	88.0	00	8	88.7	88.
8	50.7	81.	83.3	87.3	68.7	88.7	88.7	88.7		88.7	89.3	89.3	6	6		0.06
	56.7	81.	83.3	87.3	88.1	38.	88.7	88.7	8	88.1	6	89.3	-	6	0.06	90.
8	56.7	81.	83.3	0.88		89.3		89.3	89.3	89.3	0.06	0.06		1006		91.
	56.7	61.	83.3	88.	89.3	69.3	.6		6	. 6		0.06			:	91.
38	56.7	81.	83.3	88.	89.3	80.3	89.3	89.3		89.3	0.06	0.06	0.06	0	91.3	91.
1	56.7	81.	83.3	0.88	6	69.3	89.3	89.3	0	0.06	1.06	200	40.6	61.3		92.
141	56.7	83.	83.3	88.0		89.3	89.3		0	40.1	61.3	91.3	91.3	2.	92.7	92.
	26.7	81.	83.3	88.0	69.3	0.06	1.06	45.7	93.3	0.76	1.46	1.46	1.56		96.7	.96
88	56.7	20	83.3	0.88		0.06	1.06		3.		1.46	1.96	1. 56	4.	1.96	96
8	26.7	61.	83.3	68.	89.3	0.04	40.1	92.7	63.3	0.46	1.46	74.1	1.50	0.96	0 0	. 86
	26			0												

150

TOTAL NUMBER OF OBSERVATIONS

8886

14793

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

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PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

73-77

ALL HOURS (1 5 7) NOV

1486

S. III							VISI	BILITY (ST.	VISIBILITY (STATUTE MILES)	l Si						
(FEET)	5	٥ ٨١	85 Al	1	e vi	> 2%	2 4	VI 7%	YI	ĀI	% Al	* AI	× AI	≥ 5/16	VI 74	٨١
NO CEILING	28.6		48.5	0.64	2.65	49.3	9.65	0	49.7	6.64	50.0	0.00	50.1	50.1	50.2	50.3
7		51.4		. 4	. 4	3		24.00	24.8	0 1	1	3		2	3	
1 4 1 8 1 8 1 8 1 8 1 8 1					*	54.6	. 4		54.9	5	55.4	5		in		
		2.		4	5	3	3	2		9		9		9		
12000		3			7		-	-		8	8	8	8	8		
		00		-	2			3.			3	3		3	3	m
0006		8		61.9	3	N	2.	3		•	•	3	3	3		
				3	5		•			9						
1 7000		2.				-	67.3	1		-	61.9	8	3	8		8
1		4			00		8			6	6	6	6	6	6	0
2006		65.3		80	6	0	0	0		ċ		0	-	-	:	
		.0			-	-	2	2		2.	2.	2.		2.	2.	
1 41				2.		3	+	4		*	4		*	*	;	3
		0		4	5.	5	5	5		9	0	9	0	9	9	
3000		2			8	00		6	19.6	0		0	0	0	0	0
				9	0	0	-	1:		2.	2.	2.		2.	. 7	2.
1 7 1		15.9		-	2	7		3	3	4	*	*	*	*	4	5
1				-	2	1		*	4	4.	*	*		5	2	-
141	40.8	76.6		2		4	3	3	85.6	9	86.3		0	.9		
1	41.0			777		5	.0	9	0		87.4					
141	41.1			4	.9		8	8	00	6	6	6		6	6	
	41.1			84.8	86.3	7	80	00		6		6	5	6	0	
8	41.1				-	æ	6	0	0	ċ	8.06	ċ	0	:	:	
	41.1	78.2		85.7	87.3	00		0		0		-				
8	41.1			. 9	:	0	0	:	-	-		2.	2	2.	3	
	41.1	78.4		86.2	88.0	6		-		2.	3.	3.	-	3	3	
111	41.1			.9		89.8	61.5		3		0.46	94.3		94.5	94.7	
	41.1			86.3	1	6		3.	43.7	4	2	2	0	2.		
141	41.1	78.5		86.3	8	6		3		Š		•	9	9	-	
			83.6	86.3	68.3	60.68	85.3	3.	2.46		0.96		•	-		
١٨١	41.1	78.5	83.0		8	0	92.3		•			•	-	-		1000

TOTAL NUMBER OF OBSERVATIONS

1200

SMOS DIRNAVOCEANMET

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CEILING VERSUS VISIBILITY	DEC	HONTH	10	MOURS (L S T)
VERSUS				
CEILING		YEARS	CCURRENCE	TIONS)
	73-77		PERCENTAGE FREQUENCY OF OCCURRENCE	(FROM HOURLY OBSERVATIONS)
L WEATHER SERVICE DETACHMENT, ASHEVILLE, NC	WILLOW GROVE, PENNSYLVANIA	STATION NAME	PERCENTAGE FR	(FROM HO
AL WEATHER SERVIC	WILLOW GRO			

14793

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2008

CEILING							2		יייייייייייייייייייייייייייייייייייייי	(2)						
(FEET)	0 1	۰ ۸۱	\$ 41	1	e vi	2 2%	7 1	۷۱ ۲۱	V1 V2	-	% AI	* 11	% Al	> 5/16	Z Al	AI O
NO CEILING		47.1	1			1.	-	8		80		6			6	
> 20000	0	52.3	55.9	55.9	3	2	52.9	3		53.6	+	54.5		54.5	24.5	55.
1	9	52.3	5	2.	2	2.	2.			3.	. 4	3		*	•	
00091	36.1	52.3	2	2	•	2	2	3		6	*	;			•	52.
1	.0	52.3	2		3.	2	2	5		3		*		*		55.
1200	36.1	52.9				1	3	,		\$;	4		*		56.
1 -	2	57.4	8		60	10	8	8		80	6					•09
1 1	38.7	57.4				0	8	8		50	6			0		60.
1	3	62.6				5	5	4		3	5					.99
1 41		63.2		,		*	64.5	5		5	2			5		67.
1	10	63.2			0	5	5	5		5	•			0		070
200	50	64.5						-		-	2			7		69
1	3	65.2		6	1:	1	-	1.		-				8		69
4 4	5	65.8	66.5	67.1		-	67.7	4.89	4.89	68.4	0.69			0.69	0.69	70.
	5	07.1			6	6	6	6		6	0			0		7.
300	9	67.7			6	6	6	0		0	-			-		72.
1	30	11.6		2.	3	-		4		4	4			4.		76.
500	2	76.8		0		0	0	-	-	-	-			-		83.
	2	17.4		0	-	-		-			2			2		83.
141	~	77.4		0	:	-	-	8	2	2	3			ė		
	2	77.4		-	3	3		3								0
88	N	77.4				60		4	4	*	5			9		87.
	2	17.4		-		217	103	4			3			86.5		87.
88	N	77.4	•	173	85.2	85.2	85.2	5	5	5	. 9			1.	•	0
1	2	17.4			5	5		0	0	9					- E	0
38	0	77.4			•	-	-				0			0	•	91.
	N	17.4		5	1	00		6	0	0	0				2.	3
3 8	2	77.4				5		0		ċ	-			92.9	2	30
1	7	17.4			00	0		1:	Ŀ		3			2.		
38			83.2		8	0	6	91.0	~	2000		95.5	96.8	9	96.8	98
8	55.9	17.4			88.4	0.68	0.68	-:	91.0	92.9	3	•		20.0	•	
	717							•	,							

TOTAL NUMBER OF OBSERVATIONS

"ILLU" GROVE, PENNSYLVANIA

THE MEATHER SERVICE DETACHMENT, ASHEVILLE, NC

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

04 HOURS (1.5.T.) DEC

29.0 26 25 24 21 47.1 47.1 47.1 47.1 47.1 47.1 47.1 47.	CEILING							VIS	IBILITY (ST.	VISIBILITY (STATUTE MILES)	ES)						
29.0 45.2 47.1 47.1 47.1 47.1 47.1 47.1 47.1 47.1	(111)					18100			V 1%	71 71	- AI	% Al	*	AI %	≥ 5/16	7 1	٨١
13000 29, 7 45, 8 47, 1	O CEILING	29.0	40.7	41.9					41.9	41.9	47.7	42.0	42.6			43.2	43.6
13000 34.2 54.8 56.8 56.8 56.8 56.8 56.8 56.8 56.8 56		29.0	45.2	47.1					4.	47.1	· «			00			
13000 30.3 \$6.5 \$6.4 \$6.4 \$6.4 \$6.4 \$6.5 \$6.50 35.00 34.2 \$54.8 \$56.8 \$56.8 \$56.8 \$56.8 \$56.9 \$5		30.3	46.3	4.0.4	0	10	00	903	20	8	0	6		0	0		
10000 34.2 54.8 56.8 56.8 56.8 56.8 56.8 56.8 56.8 56	-	30.3	20.00	4 8 4	00 0	20	00 4	10	4 2	20 0	6	5		2 00	0 0		
3000 336.7 60.7 62.6 62.6 62.6 62.6 62.6 62.6 62.6 62	-		54.00	26.0					26		::			8	00		
6000 40.0 51.9 63.9			60.7	62.6	200	200	200	NN	62.		m m	63.2		90	mm		
42.00 42.6 56.5 58.4 68.4 58.4 69.0 69.7 69.0 69.7 69.0 69.7 69.0 69.7 69.0 69.7 69.0 69.7 69.0 69.7 69.0 69.7 69.0 69.7 69.0 69.7 69.0 69.7 69.0 69.7 69.0 69.7 69.0 69.7 69.0 69.7 69.0 69.7 79.0 69.7 79.0 69.0 60.7 60.0 60.0 60.0 60.0 60.0 60.0 60		41.0	65.5	63.9	4.	4.00	3 10	200	63.		3 -			0 10	n 80		
3500 45.2 57.7 69.7 69.7 69.7 70.3 70.3 70.3 70.3 70.3 72.3 72.9 73.6 73.6 73.6 73.6 73.6 73.6 73.6 73.6		42.64	67.1	69.0	00	8 6	0.0	00	69		60	. 0		2			0-
2500 45.2 71.6 73.6 73.6 74.2 74.8 74.8 74.2 74.6 74.2 74.6 74.2 74.6 74.2 74.6 74.2 74.6 74.2 74.6 74.1 76.1 79.4 80.0 81.3 81.9 81.3 82.6 83.9 85.2 85.8 85.8 85.8 85.8 85.8 85.8 85.8		43.5	70.3	72.3	50	5.0	om	00	73.	om	- 4	74.2			-1 5		74.8
1800 47-1 76-1 79-4 79-4 80-0 80-7 80-1 80-1 80-1 80-0 47-1 76-1 79-4 80-0 81-3 81-9 81-9 81-9 81-9 81-9 81-9 81-9 81-9		43.2	75.5	73.6	50	40	40	40	80.	+0	50	00		0 -	0-		::
1200 47.1 76.1 79.4 80.0 81.3 81.7 81.9 81.9 80.0 48.4 78.1 81.3 87.6 83.9 85.2 85.8 80.0 48.4 78.1 81.3 82.6 83.9 85.2 85.8 80.0 48.4 78.1 81.3 82.6 83.9 85.2 85.8 85.0 48.4 78.1 81.9 83.2 84.5 85.8 87.1 87.0 48.4 78.1 83.2 85.8 87.1 89.0 89.0 48.4 78.1 83.2 85.8 87.1 89.0 89.0 89.0 48.4 78.1 83.2 85.5 87.7 89.7 91.0 48.4 78.1 83.2 86.5 87.7 89.7 91.0 48.4 78.4 78.1 83.2 86.5 87.7 89.7 91.0 48.4 78.4 78.1 83.2 86.5 87.7 89.7 91.0 48.4 78.4 78.1 83.2 86.5 87.7 89.7 91.0 48.4 78.4 78.1 83.2 86.5 87.7 89.7 91.0 48.4 78.4 78.1 83.2 86.5 87.7 89.7 91.0 48.4 78.4 78.1 83.2 86.5 87.7 89.7 91.0 48.4 78.4 78.1 83.2 86.5 87.7 89.7 91.0 48.4 78.4 78.1 83.2 86.5 87.7 89.7 91.0 48.4 78.4 78.1 83.2 86.5 87.7 89.7 7 91.0 48.4 78.4 78.1 83.2 86.5 87.7 89.7 7 91.0 48.4 78.4 78.1 83.2 86.5 8 77.7 89.7 7 91.0 48.4 78.4 78.4 78.4 78.4 78.4 78.4 78.4	1	47.1	76.1	79.4	0 0	0-	0 -	0 -	8018	80.7	1.2	HN	82.6		- m		
900 48.4 78.1 81.3 87.6 83.9 85.2 85.8 800 48.4 78.1 81.9 83.2 84.5 85.9 85.2 85.0 600 48.4 78.1 81.9 83.2 84.5 85.8 87.1 87.0 89.0 48.4 78.1 83.2 85.8 87.1 89.0 89.0 89.0 48.4 78.1 83.2 85.8 87.7 89.0 89.0 48.4 78.1 83.2 85.8 87.7 89.7 91.0 48.4 78.1 83.2 85.5 87.7 89.7 91.0 48.4 88.4 88.4 78.1 83.2 85.5 87.7 89.7 91.0 48.4 88.4 88.4 78.1 83.2 85.5 87.7 89.7 91.0 48.4 88.4 88.4 88.4 88.4 88.4 88.4 88		4.8.4	76.1	81.3	ON	9:		150	85.	+10	20	20		7.0	3		4.0
700 48.4 78.1 83.2 84.5 85.8 87.1 87.1 87.1 87.1 87.1 87.1 87.1 87.1 87.1 88.4		4 4 4	7.00.0	81.3	200	m m	er in in	20 00	85.	00	87.1	170	87.1	87.1			
200 48.4 78.1 53.2 85.8 87.1 89.0 89. 200 48.4 78.1 83.2 86.5 87.7 89.7 91. 200 48.4 78.1 83.2 86.5 87.7 89.7 91.		. 4 4	78.1	83.2	4 4	100	7 0	0 P a			0 0		89.0	5 7	00		
200 48.4 76.1 83.2 86.5 87.7 89.7 91.		4	78.1	83.5	in a		00	0 -	0		-			m 0	93.6	m 4	94
100 48.4 78.1 83.2 86.3 87.7 89.1 91.			78.1	83.5	0	-	0	-	2	2	*	3			:	97.4	
0 48.4 78.1 83.2 86.5 87.7 89.7 91.	80	3 4	00 00	33.2	00	87.7	89.7	91.0	N'N	92.9	0, 0, 0, 50 0, 10	96.1			98.1	98.1	98

155

TOTAL NUMBER OF OBSERVATIONS

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

73-77

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

NOURS (LST.) DEC

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2																
(FEET)	5 1	9	so Al	4	M Al	> 2%	~ 1	V 1%	VI 71	Ā	% Al	*	Z Al	≥ 5/16	N N	AI .
NO CEILING	27.7	38.7	43.9	41.9	41.3	61.0	41.9	42.6	42.6	42.0	42.0	45.2	45.0	42.6	42.6	42.
100001	27.			100	3	3	,		0	10	5	3	2	2	2	n
1 4000		41.3		3	43.9		44.5	2		45.2		3	45.2	2	3	
	58.4			*		5				9				0		0
7 12000					-	-				6	6	6	6	6	•	0
				2		3.		*	4	4.		. 4		*	*	5
800	32.9				3	53.6	4	54.8		*	\$	*		4	;	5
				100	8	8	6	0	0	0	0	0	0	0	0	
7000				œ	58.7	3		0		0	•	0	0	0		
1				0	0	0	0	-	-	-	:	-	-	-		2
2000				-	2.	2		3.	•	-		4		4	•	
	40.7			4	5	0	50	0	0	9		-	1.	-		-
1 1	45.6			20	1.69	6	0	-		-	-	-	-	-	71.6	
1	45.6			(3)	6	6	0	-	-	-		-	:	-		2
3000	45.6			0	0	0	-	:	-	-	-	2		2.	2.	2
	43.9				*	4	4	3		3	0		0	6		
7000	45.2			0	8	00	0	0		0	•	-	-	-	=	-
	45.2			9	20	00	0	0		0	0	-	-	-	-	
1300	45.2				18.4	6	80.7	-	81.3	-	-	-		-		
	45.2			9	6	0	0	-		-	-	-	:	-	-	
100	45.8		•	78.1	0	-		4				2	3	3	2	
	45.8			6		2.		5		9	c		-		•	
8	45.8			ò	3	3	9	-		6	5	6	6	6	6	
	45.8			80.1		*		6		.0	0	-		-:		
8	45.8				*	4	-			0		-	-	-	=	
	45.8			2			.6	1:		2	2	3		3		
141	45.8			101	87.1	-	90.3	2	~	3	3	;	\$;	
	45.8			en.	87.1	8		2.		*		*		3		
30	45.8			83.2	87.1	4.88	91.0	9	3		94.8	68.8	2	9	-	98.
	45.8		80.7	83.2		00	91.0	93.6	•	8.56	94.0	2.		0	1.86	
٥	45.8			3	87.1	8	91.0	-	•	4		2	3		38	00

TOTAL NUMBER OF OBSERVATIONS

155

3

1

MAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLOW GROVE, PENNSYLVANIA

14793

10 DEC

ENCY OF OCCURRI	PERCENTAGE FREQUENCY OF OCCURRENC (FROM HOURLY OBSERVATIONS)	ENCE ENCE	
ENCY OF	FREQUENCY OF HOURLY OBSERV	OCCURR	(ATIONS)
	FREGU	ENCY OF	/ OBSER\

	٨١	41.9	47.1	48.4	55.5			64.5		1.69	78.1	19.4	81.3	81.9	86.5		88.4	90.3		34.5				98.1	0.00	0000
	× 1	41.9	47.1	50.3	55.5	0	-	64.5	00		78.1	6	81.3	81.0	86.5	87.7		90.3		2.46	43.5	96.8	96.8	4.16	11.86	98.11
	≥ 5/16	47.1	47.1	48.4			-	64.5	00	6	78.1	6	1.	81.9	9	7.	4.88	90.3	-	34.5	3	9	•	8.96	97.4	4.16
	N %	47.1	47.1	\$0.3		0		64.50	00		78.		-	83.9	0		98.4	90.3	91.6	•	•		90.8	96.8	4.16	4.16
	*	47.1	47.1	50.3	W .			04.30					-	81.9		1.	58.4	0	-	;	•	9	•	8.96	37.4	4.16
	% Al	41.9		50.3	ni	6	-	64.5	00			6	-	81.9	9		88.4	0	-	2.46			96.8	96.8	97.4	4.16
(53	<u></u>	41.9	47.1	50.3	55.5		61.9	05.00		•	73.1		81.3	200		87.1	87.7	89.7						96.1	8.96	8.96
VISIBILITY (STATUTE MILES)	VI VI	41.9	47.1	50.3		60.7	-	64.5	00	:	7.5		80.7	81.3	2		67.1	6	90.3		200	8.46	94.8	8.46	94.8	8.46
BILITY (ST.	¥1 ¥	41.9	47.1	48.4			-	64.5	00	•		78.7	0		2	86.5		89.0		65.6	•	94.8	94.8	94.8	8.96	94.8
VIS	7	41.9	47.1	8	55.5	0	-	54.5	3	÷ .		7	6	80.0		85.2	3.	:	6	9116		93.6	93.0	93.6	93.6	93.6
	≥ 2%	47.1	47.1	50.3		0		64.50	500	•	76.1		6	80.08	1 (1)	64.5	85.2	86.5	87.1	90.3	1	95.3	65.3	92.3	92.3	92.3
	6 VI	41.9	47.1	\$ 8.4		0	-	64.5	3		76.1			80.0	3	84.5	3	86.5		89.7	0	91.0	016	91.0	0.16	91.0
	1	45.5	46.5	49.7	2 3	59	9	63.2	63.		74.9	75.		1 8	- 100	80.7		82.6	32.	- 1		84.5	84.5	84.5	84.5	84.3
	8 41	4 38	43	44	1	55	56.	200	90	63	9	69	7.	1:	13	73		75	15.	16.	10		11.			
	۸I	37.	7.5	63	3 3	52.	54.	56.	56.	09	65.	65.	66	56.	69	69	66	7	1:	7:	1.	7:	11.	71.	11.	71.
	5 41				23.2					•										•		•				
CEILING	(FEET)	NO CEILING	18000	1		1	2 7000	0008 AI AI		0007 ^1	3000		7 2000	0081		88		8		8	88	84		30	-	1 11

TOTAL NUMBER OF OBSERVATIONS

155

9888

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

HILLOW GROVE, PENNSYLVANIA

14793

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

13 HOURS (1.5.7.) DEC

	٨١			~	3		5.2	-	-	-	@	6.6	-	3	-	2	7.4	0	1.	:	3.		6	6	6	:	1.6	m				0
	-	-	4 6.	0		-	.2 4	-		-		_		N		5		*		m	-	-			7	0	6 9	_		6 1 .	-	014
	Al	38	43	43	4	**	4	~	5	5	5	2	9	0	9	72	11	19	æ	00	0	20		8	00	0	0	6	0	86	66	66
	2 5/16	8	3	3	3	4	45.2	-	-		8	5	-	3	-	2	-	6	-	-	3		89.0	6			-	3.	*	30		98.
	2 11					*	45.5		-		8		-		-	2	-	6		:			6	•			-		*		1.96	7.86
	*	8	3.	3.	3	4.	2	-	-	1.	8	6	-		-	2	-	6	ċ	0		•	8	*	6	0	-	2.	4	8.96	4.1	37.6
	* *	-	6.	6.	6.	. 5		9.	9.	4.		*	0.	7.	1.	6.	4	4.		-	2.		*	*	0		0	5.9	7.5	8.9	1.4	4.7
	- AI	8.7	3.9	3.9	3.9	4.5	5.5	1.6	1.6	7.4	8.1	4.6	1.9	3.2	7.7	5.9	7.4	4.6	1.0	0.7	3.2	6.5	8.4	4.00	0.6	0.3	1.0	2.	4.2	15.5 9	6.1	6.1.9
UTE MILES	× 1	8.7	6	6.	6.	4.5	45.2 4	1.6	1.6	1.4	8.1	4.6	1.9	3.2	7.7	5.9	8.0	8.7	0.0	0.0	9.2	5.8	7.7	1.7	4.8	1.6	6.0	2.3	3.6	8.4	5.5	5.5 9
VISIBILITY (STATUTE MILES)	¥1 ¥	1	43.9 4	•			5.5	9.1	1.6	4.1	•	4.6	1.9	3.2	7.7	5.9	6.8	8.7	0.0	0.0	5.0	5.8	87.78	1.1	3.	1.6	6.9	5.3	3.6	•	2.5	35.5
VISIBI	7 7	90	-	3.9	3.9	4.5	2	1.6	1.6	7.4	8 . 1	4.6	1.9	3.2	7.7	5.6	6.8	8.7	0.0	0.0	1.9	5.5	7.1	7.1	7.7	0.6	1.6	1.0	2.3	3.6	3.6	9.66
	2 2%			6.	6.	2	.2	9.	1.6	*	8.1	*	0.	7.	7.7	2.9	00.0		0.0	0.	6.	2.	7.1	7.	7.7	0	3.7	9.	.3	0	3.0	93.6
	e 41	8	•	3.	3		45.2	-	1.0	4.1	7.	6	-	3.2	7.7	5.9	6.8	8.7	0.0	0.0	1.9	2.5	7.1	1.1	7.1	4.	0.6	-	-	2.	5.3	92.3
	7 1	38.7	43.9	63.6	6.6	64.5	.2	0		5.	8.1	4.	6.1	.2	7.7	0.	6.8	8.7	0.0	0.08	6.1	6.	5.8	85.8	8		6.8	5.	8.4		4.	7 8 8 8
	\$ AI	8	3	3		3.	;	-	-	8.9	4.	8.7	2.0	1.9	5.00	0.1	4.2	9		9		.0	6.1	5.4	1.9	5.0	5.6	3.9	3.9		3.0	0.0
	o Al	-	41.3			6.	9.	48.4	4.		•	00		3.	.3	. 3	1	-	72.3	-	2	-	_		-	16.8	00	5.	77.4	•	-	77.4
	2	.5	-	7.	-	19.1	-:	-:	7.	0	0				2	2	00	8	30	00	8			• 5	5	5.92	50.92	. 5	• 2	.5	5	26.5
CEILING	(FEE	O CEILING	> 20000		00091 N	> 14000	7 12000	2	000	1	2 7000		2000	1	000	1	3000	1	7 2000		1500	1	000		8		98		84	300	38	80

TOTAL NUMBER OF OBSERVATIONS

155

40 8 8

SMOS

DIRNAVOCEANMET

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NO

WILLUM GROVE, PENNSYLVANIA

14793

16

DEC

PERCENTAGE FREQUENCY OF OCCURRENCE

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	0 1	30.8	44.5	45.2	45.2	45.2	47.7	51.0	51.0		56.8	57.4	63.2	64.5	67.7		74.8	78.1		81.3	84.5	85.2	6.06	6.06	6.06	91.0	93.6	1.96	97.4	97.4	7.86	4.66	000
	× 1	80	. 5		45.2		47.7	0	51.0	-	8099	*	.2	.5	67.7	4.6		3.1		3		.2	8.06		6.06	0.	93.6	1.96	97.4	4.16	1.86	4.6	. 4
	5 5/16	36.8		.2	.2	45.2			0	-	56.8		.2	.5	1.		8	-			.2	2.		.3	1	0	9.		4.	4.16		1.86	8.7
	% Al	30.0		.2	.2	2.		0	0	-	56.8	*				1.	8	-			5	2.	3		0.3	0	3.6	-	104		8.7	1.86	8.7
	* 1	36.8	;	•	.2	2.5	1.	0.	0	-	56.8	*	2.	5	1.	1.	8	-	1.	.3	.5	~	1.6	4.6			2.3	00	6.1	1.96	7.4	4.16	4.6
	% Al	20	5	5.5	5.5	2.5	7.7	0	1.0	-	8.9	4.1	3.5	4.5	7.7	1.6	8.4	1.5	. 1	1.3	4.5	2.5	. 7	1.6	1.6	6.0	2.3	8.4	6.1	1.0	7.4	1.4	1.4
	- 1	8.9	4.5	5.2	.2	5.2		1.0	1.0	1.9	8.9	1.4	3.2	4.5	7.7	2.6	4.8	8.1	1.0	1.3	4.5	5.5	1.6	2.5	1.6		2.3	4.8	1.9		1.9	6.1 9	6.1
UTE MILES)	71 7	80	.50	2.	.2		-	-:	1.0 5	7	56.8 5		2.	.5	7.7 6		2.	3.			6.		0	0.6	0.6		0.3	2.	4.2	*	4.2	4.2 9	2.4
VISIBILITY (STATUTE MILES)	½1 Y	36.8			5.5	5.2	7.7	5 0.1	-	1.0		5.	2	4.5	67.7	4.4		3.	0	0.7	0	4.5	0	0	89.0 8	0	0.3	-	9.	9.6	13.6	9.6	3.6
VISIBI	2 1	9.9		3.2	15.2	0	-	51.0	1.0	6.1	56.8	7.4	3.2	4.5	7.7	1.6	4 . 2	-	0.0	1.00	3.9	4.5	0.6	0.6	89.0	0.6	ò	2.9			2	3.6 9	3.6
	2 2%	6.0	4.5	5.5	.2	2.5		1.0	1.0		6.6	4.	2.	4.5	67.7	1.6		5.	0.0		3.9	c.	0.6	0.6	0	0.6	0.3	5.9	3.6	3.6 9	9.	9.6	3.0
	es Al		4.5	5.2	2.5	2.5	7.7	1.0	0	5.1	00	4.	2.			-	~	0.		*	9.	7.	5.8	5.8	5.8	85.8 8	3	-	17.7	87.7	17.7	87.1	17.7
	7 1	00	4.5	5.2	5.2	_	1.	0	0			*	9.	6.	-4	0	9.		-		81.3	1.3	83.9	3.9	3.9	3.9	3.9	4.5	4.5	4.3	4.5	4.5	4.5
	۷5 ۸1	00	2	5	0	0	1	-	~	00	2	-	0	0	8	-	9	2	7	B	4	4	6	6	6.	5.	6.	9.	9.		32.6		0
	۰ ۸۱	1	6	9.	9.	0		-	1	6	9.	.2	4		0	00	0	9.	0	0	8		4	4	4	4	4	03		-		8.1	-
	2	3.6	0.0	0.0	0.0	0.0	1.0	1.3	1.3	2.6	5.5	5.6	4.5	4.5	2.5	5.2	2.8	5.8	5.8	9.0	6.5	6.9	6.9	6.5	6.5	6.9	6.5	6.3	6.5	6.5	5	6.5	6.9
CEILING	_	0	20000	-	00091	-	12000	-	0006	-	2000	-	2000	-	0007	-	3000	-	2000	+	1500	-	0001	-	008	-	8	-	400	-	300	8	-
GEL	3	9	۸۱ ا۸		1 1 1		141	1	AI	1	IAI	1	1 11	1	IAI	1	IAI	1	1 11	1	1 11	1		٨	1 11	^	IAI	٨	M	٨	141	AI	AI

TOTAL NUMBER OF OBSERVATIONS

155

SMOS DIRNAVOCEANMET

56.8

3

DEC MONTH

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

73-77

YEARS

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

HOURS (L S.T. 19

50.3 ٨١ 51.0 50.3 ٨١

21.0 52.9 51.0 56.8 56.8 56.8 56.8 51.0 52.9 52.9 52.9 51.0 51.0 51.0 51.0 2 5/16 51.0 51.0 51.0 56.8 56.8 ٨I 29.4 21.0 50.3 * 52.9

51.0

51.0 51.0 51.0

52.9 52.9

52.9 52.9 52.9

52.3

52.3

52.3

51.6

24.8 54.8

34.5

34.2 34.8

000 000 000

AI AI

20.3

50.3

1.65

31.6 32.3

12000

56.1

56.1

56.8 56.8 56.8

51.0

51.0

51.0

0.16 50.3

0.16

50.3

50.3 51.0

49.7 50.3

49.7

0.65

31.0

NO CEILING

20000

2

(FEET)

51.0

51.0

51.0 21.0

51.0

50.3 50.3

50.3

50.3

49.7

31.6

VI VI 0008 1 VI 0009 1 VI

50.3

1.69

31.6

21.0

50.3

50.3 51.0 51.0

% AI

۸۱

٨١

VISIBILITY (STATUTE MILES)

51.0 51.0 52.9

> 29.4 29.4

56.8

56.8

56.8 56.8 7.65

8.99

29.4

29.4

59.4 59.4 59.4

56.8

56.8

56.8 56.8

56.1

56.1 58.7

55.5 58.1 58.1

57.4 57.4

34.8

2000

AI AI

58.7

59.4 59.4 59.4 63.9 60.7 60.7 63.9 65.8 65.8

59.4 59.4 63.6 60.7 11.0 69.7 71.0 69.7

63.9

63.6

63.9

63.9

63.6

63.9

63.9 65.8

63.2

63.2 65.2 0.69

62.6

61.9

38.1

5000

ALAL

6.40

03.2

38.7

67.7

66.5

0.04

4500

AI AI

67.1

0.04

000

60.7

60.7

60.7

60.7

60.7

000

0.09

0.09

36.1 58.7 59.4

59.4

59.4

59.4

\$ 65

59.4

\$65

58.7

58.7

69.7 71.0

69.7 0.17

65.6

9.59 69.7

65.8 69.7 70.3

8.59

65.8

1.69 70.3

7.69 10.3

69.7

0.69

65.2

0.17 77.4 77.4 69.7 65.8 4.61 77.4 77.4

83.9 83.9 83.9 83.9 83.9

4.61 83.9

19.4

78.7 83.2

78.7 83.2

78.7

78.7

78.7

77.4 81.9

16.8

75.5

13.6

45.6

80.7 80.1

78.7

76.1

43.9

2500

ALAI

83.2

83.2

83.2

77.4

76.8

76.8

76.8

76.8

76.8

75.5

75.5

74.2 4.89

72.3

41.9

3000

AI AI

6.0

69.7

69.7

70.3

83.9 83.9 83.9 83.9 84.5 84.5 84.5

83.9

83.9

83.2

83.2 83.9

83.2

83.2

83.2

83.9

83.9

84.5

83.9 87.7

83.9

83.9

83.2

83.2

83.2

83.2

81.9 83.2

83.9

88.4 88.4 88.4

88.4

79.4

83.9

88.4

88.4

88.4 88.4

90.3

80.3

88.4

88.4

87.7 87.7

87.1

87.7

86.5 87.7

83.2

80.7

78.1

43.9

87.7 87.7

87.7

87.7

86.5

83.2

80.7

81.3

4.61

16.8 78.1

43.9 43.9

1200

AI AI

20.7

78.7

76.1

43.9

1800

AI AI

78.7

1.91

43.9

90.3

90.3 90.3

90.3

89.7

89.7 89.7 90.3

89.7

99.0 89.0

83.9

80.7 80.7

78.1 78.1

43.9

88

ALA

89.7

0.68 89.7 92.3 92.3

89.0

89.7

88.4 0.16

84.5

80.7

78.1

43.9

88

ALAI

43.9

63.9

86.5

6.18

78.7

63.9

86.5

81.9

7.8.7

6.65

8 8

ALAI

78.7

43.9

88

AI AI

18.7

78.7

43.9

80

AI AI

6006 91.0 91.0 6006 93.6 6.06 93.6

91.0

91.0

91.0

90.3

90.3

93.6 2.46

65.6 93.6

6.26

6.26 65.6

6006

89.7

2.46 94.2

4.16

96.1

94.2

93.6 94.2

96.1

34.2

95.5

93.6 94.2

65.8

92.3

92.3

92.9

91.6 92.9

THE

2.46

94.2

2.46

TOTAL NUMBER OF OBSERVATIONS

155

DIRNAVOCEANMET

SMOS

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

0

73-77

22 HOURS (1.5.T.) DEC

SE

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

(FEET)	01	^	*			> 214			× 1	- A			25	> 5/16		^
				A I	e Al		7	2			*	*			*	
NO CEILING			43.9		3	3	*	5	5	0	6	0	6	9	6	
> 20000	10	0	-		-		2	2	3	;		*	+	4	;	
		0	51.0		-	-4	2.	2	3	4	;		*	4		
00091 3		50.3	-		-	-	2	2		*	*	;	*	4	;	
	3	0	21.6		-	-	2.	2		*	*	*	*	4	-	
2 12000	35.5	52.3	3	53.6	53.6	53.6	4	54.0	'n	9	56.1	56.1		0	;	
1	00		58.1		8	80	00		0	0	0	6	0	0	0	
000		57.4	58.7		8	α 3	6	0	0	-	-	-	-	-	:	
9008			61.9		-	-	2.	3	-	3	3	3	4.	4	:	
141	0	60.7			-	~	2		3	*	*	4	\$	4	;	
1	-	61.3	63.2		3	6		*	5	3	5	5	3	5	3	
0005	43.9	63.8	66.5			6.	-	-	8	6	0	6	6	6		
1		5.59	67.1		-		8			0	0	0	0	0	0	
1 1 1	46.5	66.5			6	0		0	-	-	-	-	-	-	-	
1	.0	67.7			-	-	1	7	2	3	5	3	3	=	3	
3000	47.1	0.69			*	673	*	*	3	0	. 9	9	0	6.	;	
1					9	0	-		00	6	6	6			6	
171	49.7	75.5			:		2		3	*	*		*	*	*	
1800	49.7		1.08		-	2	3	3	3	3	2	2	2	2	2	
1500	1.65	75.3			2.		3	*	2	ò	9				•	
	3	76.1	81.3		*	200	. 4	2	5	-		-		-	-	
0001	1.65	76.8			3	3	.9	-	8	6	0	0	:	-	-	
8	46.7	76.8			3	9	2		6	0	-	-	-:	-	-	
8	1.65		:		2	7.	-		6	-	-	:	2.	2.	2.	
780	46.1	16.8	-		5		2		6	-	-	-	2.	3	2	
009	1.65		5.		-	6	6	-	-	~	ë	3		*	;	
	1.65	77.4	2.		-	6	5	-	-	3	4	*	*	*	;	
9	1.64	77.4	7		90		-	5	2		'n	3		0	•	
	1.65	17.4			6	0	:	2	*	3	9		0	9	•	
141	49.7	77.4			89.7		92.3	*	95.5	97.4	1.86	1.86	98.7	98.7	98.7	98.7
	1.64	77.4			6	91.0	2.	94.8	3		8		8	8	8	
0		77.4	3	87.1	6		2.	*	3	-	1.86	1.86	*	80	4.66	

TOTAL NUMBER OF OBSERVATIONS

155

CEILING VERSUS VISIBILITY

NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NC

WILLOW GROVE, PENNSYLVANIA

14793

73-77

MONTH 111

330

0

TOTAL NUMBER OF OBSERVATIONS

6.96

45.7

94.0 95.7 0.46

93.8 93.8 1240

0.66 5.86 98.6100.0

95.0 95.0 95.0

92.5 92.7 93.8 94.1 94.4 93.3 93.5 94.8 95.5 95.7

90.7 91.4

91.4 92.2 92.2 92.2

91.2 91.3 91.3

4.68 99.0

85.9

82.0 82.0

9.68 4.68

63.9 85.9

40.7

80

AI AI

6116

61.6

6116

91.3 91.4

90.2 91.0

1.06

0.68

88.5

87.1

81.1 84.2

76.1 40.6 76.5

40.0

88

AI AI

81.9 85.6 81.8 85.3

> 76.5 76.5 76.5 75.5 76.5

40.1

88

AI AI

40.1 40.7 40.7

88

AI AI

8.96

0.86

91.6 7.16

97.5 7.16

94.0 95.6 96.5 96.8 1.96 7.96

93.8

CEILING VERSUS VISIBILITY

WILLOW GROVE, PENNSYLVANIA

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL

ALL HOURS (1 S T)

CEILING							VISI	VISIBILITY (STATUTE MILES)	ATUTE MILI	£S)						
(FEET)	5	9	85 Al	71	es Al	> 2%	7	VI 71	VI 7.1	-	*	*	Z AI	≥ 5/16	AI N	٥
NO CEILING	27.	42.1		0	47.1	200		8	0.64	6	6	6			6	4.64
× 20000	30.0	46.7		51.7	53.3	53.9	54.4	54.7	54.7	55.0	55.1	55.1	2	55.5	55.3	55.3
V 18000	30.	8.95		-	100	3		4		3		3	5	3	5	55.4
7 16000	30.1	46.8		-	53.4		54.5	+	54.8	5		3	3	5		55.4
		47.3		S	4	. 4	5.	5	5	3		5		5		
> 12000	30.9	48.5		24	95.4				•			-	1			57.5
,	32.6			200	6	0	-	-		-		2.				62.2
0006	32.7	52.5		58.2		900	4.19	-	-	62.1	62.2	2.29		65.3	4.29	65.5
				62.1	4.	*	5	9		•						8.99
1 1	34.3			9.29	*	50		•		-		-				4.19
1				63.8	5	0	-					8				8.89
2000				65.3	67.5	8		6	6	ċ		0				70.5
1				66.7		0		-		-		-				72.1
1 1				69.3	-	2		*	*	3	*	*				75.0
1				6.01		*		5		9				9		16.9
3000				74.2		8	6	6		ċ		0		0		80.9
1				15.7		0		-		2	2.	7		2.		82.7
1 2000				77.7		2	3		*	3				3		85.3
1				41.9		2.				5		3.		3		85.6
1300				1001	82.6	*	5					-				87.3
1				19.8		5	.9					8		8		88.4
1 1 1000				80.8		9	8		6	6	:	0		0		90.5
				81.0	3	9		6		0		0	0	0		90.8
8							6	0	0		:	:	:	:		92.1
					3			0		-		2	2	2		95.6
8				2	9	82	0	-	-	2		3	3	3		
				2.		6		2		3		*		*		
141				2	-	6		3	3	*	3	2				3096
30			17.3	82.6		0.06	95.8	6.36	4.46	80	6.96				61.6	
1 200	-			2.		0	3	:	;	è		:				98.3
80	9.00	70.5	77.3	62.7	87.6	0.0	93.0	96.0	**	96.3	27.0	07.0	90	48.4	8 00	2000
	- 1	•			:	5	2	•	:	0		•	;	0	•	2

TOTAL NUMBER OF OBSERVATIONS

14608

DIRNAVOCEANMET SMOS

14793

5704 SKY COVER JAN 68

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS) 73-77

WILLOW GROVE, PENNSYLVANIA

14793 STATION

0

0

0

0

MONTH

TOTAL	088.	155	155	155	155	155	155	155	155			1240
MEAN	SKY COVER	5.2	5.4	6.1	6.7	7.0	6.9	5.6	5			0.9
	10	38.7	40.0	38.1	41.9	45.2	43.2	34.8	40.6			40.4
	6	1.3	9.	5.2	7.1	5.5	3.9	1.9	1.3			3.3
	&	3.9	5.5	3.9	6.9	0.6	*	0.6	80			6.5
SKY COVER	7	2.6	6.5	7.1	6.5	0.6	3.2	6.5	3.9			5.4
PERCENTAGE FREQUENCY OF TENTHS OF TOTAL SKY COVER	9	2.6	3.2	5.5	2.6	2.6	3.5	2	3.2			3.4
Y OF TENTHS	3	1.3	1.3	6.5	1.3	1.9	5.2	4.5	1.9			3.0
E FREQUENC	,	5.2	1.9	2.6	0.6	3.2	1.3	3.5	1.9			3.5
PERCENTAG	6	3.2	1.9	4.5	5.8	4.5	4	2.6	3.2			4.3
	2	5.2	20	5.8	4.5	6.5	7.1	2.6	5.2			5.3
	-	7.1	4.5	8.4	2.6	3.9	3.9	5.8	1.9			8.4
	0	29.0	30.3	12.9	12.3	0.6	12.3	24.5	31.0			20.2
HOURS	(L.S.T.)	10	40	07	10	13	16	19	22			STA
	MONIN	NAL										TOTALS

SKY COVER

WILLOW GROVE, PENNSYLVANIA 14793 STATION

0000000

73-77

F F B

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

FER 01 31.9 04 33.3 07 21.3 10 17.0 19 29.1 22 36.9	-					1010	PERCENTAGE FREQUENCY OF TENINS OF TOTAL SKY COVER				MEAN	TOTAL
01 31 04 33 07 21 10 17 19 19 19 29 22 36		2	6	1	35	9	7	8	6	01	SKY COVER	OBS.
25 12 1. 1. 2. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.	4.9	2.8	3.5	3.5	1.4	2.8	2.8	5.7	4.3	34.8	5.1	141
12 1 1 2 de	2.8	5.7	1.4	1.4	2.8	3.5	2.1	4.3	5.7	36.9	5.3	141
12 13 26 29 29	4.0	5.0	7.8	4	2.1	2.8	4.9	2.8	2.8	38.3	9.6	141
36 29 13	7.1	7.1	4.3	3.5	7.1	1.4	5.0	7.8	2.8	36.9	20	141
36 36	3.5	5.7	5.7	5.0	5.7	5.0	5.7	5	6.4	37.6	6.3	141
	3.5	5.0	3.5	.7	7.1	8.5	9.2	3.5	5.0	37.6	6.3	14
	7.8	. 7	5.0	2.B	104	2.1	7.1	5.7	1.4	36.9	5.3	141
	2.8	4.3	4.3	2.1	1.64	5.0	2.1	5.0	8	32.6	3.4	14
TOTALS 24.9	5.0	4.5	4.4	2.9	3.6	3.9	5.1	5.4	3.7	36.5	5.6	1128

OFO

SKY COVER

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

73-77

WILLOW GROVE, PENNSYLVANIA

14793

0

0

	HOURS				PERCENTAG	E FREQUENC	PERCENTAGE FREQUENCY OF TENTHS OF TOTAL SKY COVER	S OF TOTAL	SKY COVER				MEAN	TOTAL
MONTH	(LS.T.)	o	-	2	6	1	8	9	7	8	٥	0	SKY COVER	OBS.
MAR	10	27.1	4.5	3.2	3.9	1.3		9	3.9	4.5	1.3	49.7	0.9	155
	90	23.2	3.2	2.6	6.5	9.	3.2	2.6	2.6	3.2	4.5	47.7	6.2	155
	20	16.1	3.2	1.9	3.9	1.9	5.2	1.3	5.2	7.7	0.6	44.5	3.0	155
	10	11.0	4.5	3.9	6.5	20	2.6	2.6	4.5	7.1	0.6	42.6	8.0	155
	13	0.6	5.8	1.9	1.3	2.6	4.5	1.9	5.8	10.3	7.7	49.0	7.4	155
	16	7.6	4.5	2.6	3.9	3.5	00	3.2	5.8	7.1	5.5	0.65	7.2	155
	19	13.5	7.1	3.9	5.6	4.5	4.5	2.6	7.1	4.5	1.3	45.2	6.4	155
	22	27.7	3.2	3.2	1.9	1.3	1.3	2.6	3.9	3.2	3.2	48.4	6.1	155
ό	TOTALS	17.2	4.5	2,9	4.2	2.7	3,4	2.2	4.9	0.9	5.2	5.2 47.0	9.9	1240

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14793 WILLOW GROVE, PENNSYLVANIA

73-77

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APR

SKY COVER

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

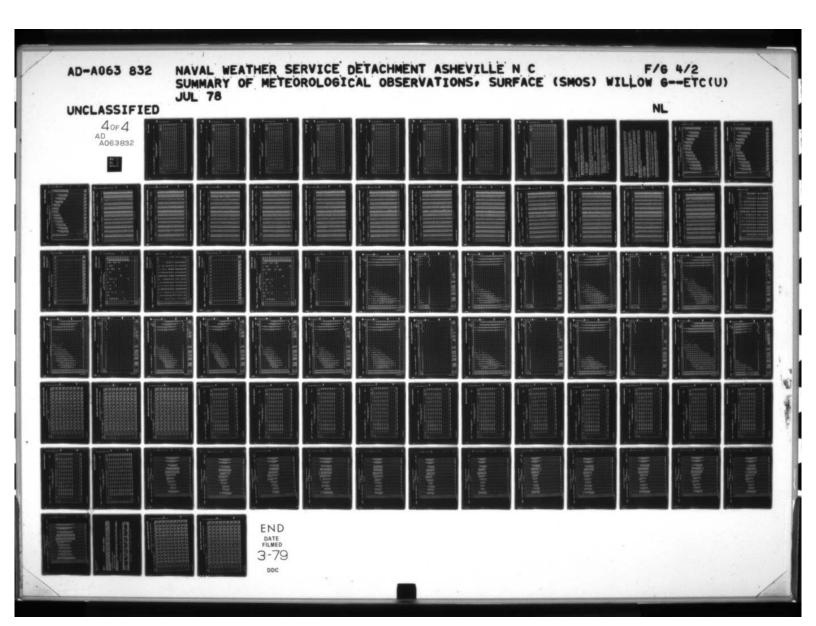
(1.51) 0		HOURS				PERCENTAG	E FREQUENC	PERCENTAGE FREQUENCY OF TENTHS OF TOTAL SKY COVER	S OF TOTAL	SKY COVER				MEAN	TOTAL
01 33.3 2.0 2.0 4.0 6.0 2.0 4.0 3.3 4.0 2.7 36.7 5.2 04 31.3 2.7 2.7 4.0 3.3 2.0 2.0 12.7 3.3 2.0 34.0 5.3 07 27.3 4.7 3.3 2.7 2.0 3.3 4.7 8.7 9.3 3.3 30.7 5.4 10 24.0 2.7 1.3 4.7 4.7 2.7 5.3 4.7 8.0 8.0 34.0 5.9 13 14.7 4.7 3.3 3.3 2.7 4.0 6.0 8.7 4.0 38.0 6.2 14 16.7 8.7 6.0 5.3 2.7 6.0 4.0 4.7 4.0 6.0 36.0 5.8 22 32.7 2.7 6.0 4.0 3.3 1.3 2.0 5.3 8.7 5.3 28.7 5.0 24.8 3.9 3.5 4.8 3.8 3.2 3.9 6.8 6.4 5.0 33.9 5.6	E NOW	(L.S.T.)	0	-	2	8	4	3	9	7	8	6	10	SKY COVER	OBS.
04 31.3 2.7 2.7 4.0 3.3 2.0 2.0 12.7 3.3 2.0 34.0 5.3 10 24.0 2.7 2.7 2.0 3.3 4.7 8.7 9.3 3.3 30.7 5.4 10 24.0 2.7 1.3 4.7 4.7 5.3 4.7 8.0 34.0 5.9 13 14.7 4.7 3.3 8.7 5.3 4.7 8.0 8.0 34.0 5.9 16 18.7 4.7 5.3 4.7 4.0 6.0 36.0 5.8 19 16.7 8.7 6.0 4.0 4.0 4.0 36.0 5.8 22 32.7 5.0 4.0 4.7 4.0 6.0 36.7 5.0 24.8 3.9 4.6 3.2 1.2 2.0 5.3 8.7 5.0 38.7 5.0 24.8 3.9 4.6 3.2 3.9 5.9 6.6 5.0 38.7 5.0 38.9 5.6 <td>ox</td> <td>10</td> <td>33.3</td> <td>2.0</td> <td>2.0</td> <td>4.0</td> <td>0.9</td> <td>2.0</td> <td>4.0</td> <td>3.3</td> <td>4.0</td> <td>2.7</td> <td>36.7</td> <td>2.2</td> <td>150</td>	ox	10	33.3	2.0	2.0	4.0	0.9	2.0	4.0	3.3	4.0	2.7	36.7	2.2	150
10 24.0 2.7 1.3 4.7 2.0 3.3 4.7 8.7 9.3 3.3 30.7 5.4 13 14.7 4.7 3.3 3.7 2.7 5.3 4.7 8.0 8.0 34.0 5.9 14 14.7 4.7 3.3 3.3 2.7 4.0 6.0 8.7 4.0 38.0 6.2 15 18.7 3.3 3.3 5.3 5.3 5.3 5.3 8.7 5.3 8.7 5.3 6.1 19 16.7 8.7 6.0 5.3 2.7 6.0 4.0 4.7 4.0 6.0 36.0 5.8 22 32.7 2.7 6.0 4.0 3.3 1.3 2.0 5.3 8.7 5.3 28.7 5.0 24.8 3.9 3.5 4.8 3.8 3.7 3.9 6.8 6.4 5.0 33.9 5.6		40		2.7	2.7	4.0	3.3	2.0	2.0	12.7	10	2.0	34.0	5.3	150
10 24.0 2.7 1.3 4.7 4.7 2.7 5.3 4.7 8.0 34.0 5.9 13 14.7 4.7 3.3 8.7 2.7 4.0 6.0 8.7 4.0 38.0 6.2 16 18.7 3.3 3.3 3.3 5.3 5.3 8.7 5.3 8.7 5.3 6.1 19 16.7 8.7 6.0 5.3 2.7 6.0 4.0 6.0 36.0 5.8 22 32.7 2.7 6.0 4.0 4.0 6.0 36.0 5.8 7 5.3 28.7 5.0 24.8 3.9 4.6 3.2 3.2 3.2 3.9 6.8 6.4 5.0 33.9 5.6		20	27.3	4.7	3.3	2.7	2.0	3.3	4.7	8.7	6.6	3.3	30.7	3.4	150
13 14.7 4.7 3:3 8.7 5:3 2:7 4:0 6:0 8:7 4:0 38:0 6:2 16 18.7 3:3 3:3 3:3 5:3 5:3 8:7 5:3 8:7 5:3 6:1 19 16.7 8.7 6:0 5:3 2:7 6:0 4:0 4:0 5:8 22 32.7 2:7 6:0 4:0 3:3 1:3 2:0 5:3 8:7 5:3 28:7 5:0 24.8 3:5 4:8 3:2 3:2 3:9 6:8 6:4 5:0 33:9 5:6		10	24.0	2.7	1.3	4.7	4.7	2.7	5.3	4.7	0.8	0.8	34.0	5.9	150
16 18.7 3.3 3.3 5.3 5.3 8.7 5.3 8.7 5.3 8.7 5.3 8.7 5.3 8.7 5.8 19 16.7 8.7 6.0 4.0 4.0 4.0 4.7 4.0 6.0 36.0 5.8 22 32.7 2.7 6.0 4.0 3.3 1.3 2.0 5.3 8.7 5.3 28.7 5.0 24.8 3.9 3.8 3.2 3.9 6.8 6.4 5.0 33.9 5.6		13	14.7	4.7	3.3	8.7	5.3	2.7	0.4	0.9	8.7	4.0	38.0	6.2	150
19 16.7 8.7 6.0 5.3 2.7 6.0 4.0 4.7 4.0 6.0 36.0 36.0 5.8 22 32.7 2.7 5.0 3.3 1.3 2.0 5.3 8.7 5.3 28.7 5.0 22 32.7 2.7 5.0 5.3 28.7 5.0 5.0 24.8 3.9 3.5 3.9 6.8 6.4 5.0 33.9 5.6		16	18.7	3.3	3.3	5.3	3.3	5.3	5.3	7.8	5.3	6.7	32.7	6.1	150
22 32.7 2.7 6.0 4.0 3.3 1.3 2.0 5.3 8.7 5.3 28.7 5.0 22.7 5.0 24.8 3.9 3.2 3.9 6.8 6.4 5.0 33.9 5.6		19	16.7	8.7	0.9	5.3	2.7	0.9	0.4	4.7	0.4	0.0	36.0	20	150
24.8 3.9 3.5 4.8 3.2 3.9 6.8 6.4 5.0 33.9 5.6		22	32.7		0.0	0.4	3.3	1.3	2.0	5.3	7.00	5.3	28.7	5.0	150
24.8 3.9 3.5 4.8 3.2 3.9 6.8 6.4 5.0 33.9 5.6															
24.8 3.9 3.5 4.8 3.2 3.9 6.8 6.4 5.0 33.9 5.6															
24.8 3.9 3.5 4.8 3.8 3.2 3.9 6.8 6.4 5.0 33.9 5.6															
	101	ALS	24.8	3.9	3.5	4.8	3 • 8	3.2	9	30.0	4.9	5.0	33.9	5.6	1200

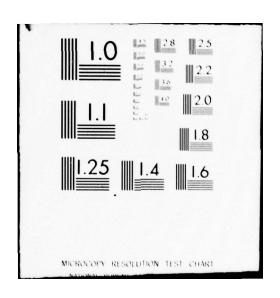
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73-77 WILLOW GROVE, PENNSYLVANIA

TOTAL	0.00	155	155	155	155	155	155	155	155		1240
MEAN	SKY COVER	3.6	5.3	5.0	6.3	7.3	7.2	7.0	3.6		6.3
	01	35.5	34.6	42.6	42.6	46.5	43.9	43.9	37.4		4.3 40.9
	٥	3.2	5.8	3.2	3.9	7.7	4.5	5.8	0.		4,3
	8	6.5	6.5	4.5	6.0	0.6	4.80	7.1	7.1		7.0
KY COVER	_	6.5	4.5	2.6	3.2	5	8.4	5.00	6.5		5.3
PERCENTAGE FREQUENCY OF TENTHS OF TOTAL SKY COVER	0	2.6	0	3.2	5.2	2.6	20	3.9	2.6		3.3
OF TENTHS	50	2.6	1.3	1.9	5.8	7.1	30	5.2	1.9		4.0
FREQUENCY	4	2.6	3.5	3.5	3.2	3.2	5.5	6.9	2.6		3.7
PERCENTAGE	6	7.7	7-1	4.5	3.9	7.1	5.8	4.0	11.0		6.9
	2	4.5	1.9	6.5	5.2	3.2	3.9	4.5	4.5		4.3
	-	3.9	2.6	5.2	5.2	4.5	2.6	3.9	3.9		4.0
	0	24.5	31.0	22.6	15.5	6.3	32	5.2	21.9		16.5
HOURS	(L.S.T.)	10	50	07	10	13	16	19	22		571
-	MONIN	MAY									TOTALS





SKY COVER

WILLUM GROVE, PENNSYLVANIA 14793 STATION

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73-77

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PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

	HOURS				PERCENTAG	PERCENTAGE FREQUENCY OF TENTHS OF TOTAL SKY COVER	Y OF TENTH	S OF TOTAL	SKY COVER				MEAN	TOTAL
MONTH	(L.S.T.)	0	-	2	6	•	5	9	1	80	6	0.	SKY COVER	OBS.
NOC	10	19.3	2.7	7.3	8.7	0.4	1.3	2.7	0 9	6.7	5.3	34.0	5.8	150
	40	14.7	2.7	5.3	6.7	7.3	9.0	4.0	5.3	5.3	5.3	39.3	6.3	150
	0.7	13.3	2.7	4.0	0.0	3.3	4.0	2.0	5.3	6.6	3,3	46.7	9	150
	10	6.3	5.3	4.0	5.3	4.7	3.3	7.3	6.7	6.6	4.7	0.04	6.7	150
	13	3,3	2.0	. 7	2.0	0.4	8.0	7.3	13.3	14.7	8.0	36.7	7.0	150
	16	3.3	2.7	2.7	5.3	0.9	5.3	7.8	7.8	13.3	6.7	37.3	7.3	150
	19	8.0	5.3	4.0	3,3	6.6	4.0	0.4	0.0	12.7	11.3	32.0	7.0	150
	22	16.0	2.0	6.7	1.0	7.3	0.4	2.7	7.3	11.3	2.7	33.3	6.0	150
10	TOTALS	10.9	3.2	4.3	3.5	5.7	4.2	4.8	7.6	10.3	5.9	37.4	6.7	1200

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73-77 WILLOW GROVE, PENNSYLVANIA 14793

1 2 3 4 5 6	PERCENTAGE FREQUENCY OF TENTHS OF	PERCENTAGE FREQUENCY OF TENTHS OF TOTA	6 PREQUENCY OF TENTHS OF TOTA	s 6	8 OF TOT	3	SKY COVER	•	٥	9	MEAN TENTHS OF SKY COVER	NO. OF OBS.
4.5	-	7.7	3.9	2.6	4.5	4.5	7.1	4.5	3.2	26.5	4.7	155
5.2 4		4.5	3.9	5.8	9.	4.5	6.5	5.8	3.2	34.8	5.5	155
4.5 3.2	3	2	4.5	4.5	2.6	1.3	5.8	6.5	7.6	9.7 33.5	5.8	155
5.8 6.5	6	2	3.9	3.2	3.9	3.2	7.7	11.0	5.2	31.0	3.8	155
1.3 5.8	5.	50	7.7	9.6	40	7.7	7.7 11.6	0.6	4.	26.5	6.5	155
3.2 5.2			7.1	5.5	0.6	4.0	8.4 12.9 11.6	11.6	4.5	25.2	6.3	155
5.2 4.5	4.5		7.7	5.2	3.2	5.2	7.1	0.6	0.6	29.0	1.9	155
3.2 8.4	4.80		5.8	1.9	1.3	6.5	3.2	7.1	5.8	27.7	5.0	155
		+ +										
4.1 5.7	1	-	,				:		1		1	1

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SKY COVER

1793 MILLOW GROVE, PENNSYLVANIA

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TENTHS OF NO OF		5.3 155	5.9 155										
	10 S	31.0	0.04		6.5 35.5	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
	6	4.5 31.0	3.2 40.0	6.5		5.8 34.8	5.8 34.8	8 4 8	5.8 34.8 8.4 34.8 5.8 34.8	5.8 34.8 5.8 34.8 5.8 34.8 4.5 36.1	8. 4. 8. 6. 4.	8. 4. 8. 6. 4.	8. 2. 8. 6. 7
	80	7.1	7.7 3.2	7.7									
SKT COVER	,	3.9	7.7	3.9		5.2 11.0							
OF IOIAL	•	3.9	3.9	3.2		3.2	3.2	3.2	3.2 2.8 3.2 3.2 5.2	3.2	3.2 2.6 3.2 3.2 5.8	3.2 3.2 3.2 5.2 5.2	3.2 2.8 3.2 5.8 5.8
PERCENTAGE FREQUENCY OF TENTHS OF TOTAL SKY COVER	5	3.9	3.9	3.2		4.5							
FREQUENC	•	5.2	3.2	30.00		3.2							
PERCENTAG		4.8	5.8	7.1	-	6.5	6.5	\$ 5.5	6.5 9.4 6.5	5.4	2.4 4.5 5.5	3.4 8.5 5.5	3.2 5.5
	2	3.2	4.5	7.1		1.9							
	-	6.1	3.9	5.8		7.1	7.1	2.2	5.2	5.2 5.2 5.2 5.2 5.2	5.2 5.2 5.2 5.2	2.2 2.2 2.2 2.2 3.2	2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2
	0	17.1	20.6	14.2		16.8	16.8	1.7	16.8	16.8	16.8 7.7 5.8 12.3 21.9	1.7 7.7 5.8 5.8 21.9	16.8
HOURS	(1.5.1.)	10	40	07	-	10	9 5	9 5 9	9 6 6	2 2 6 2 2	2 2 6 2 7	2 2 6 2 2	2 2 4 6 2 7
TACH.		AUG											

14793 WILLOW GROVE, PENNSYLVANIA

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CRIOD

SEP

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

	HOURS				PERCENTAG	PERCENTAGE FREQUENCY OF TENTHS OF TOTAL SKY COVER	Y OF TENTH	S OF TOTAL	SKY COVER				MEAN	TOTAL
MONTH	(LS.T.)	0	-	2	8	•	3	•	7		6	01	SKY COVER	OBS.
SEP	10	22.0	1.4	8.0	5.3	0.4	2.7	4.7	0.4	0.0	1.3	37.3	5.6	150
	90	26.0	3.3	4.7	4.7	4.7	4.7	2.7	6.7	2.7	4.0	36.0	5.5	150
	07	15.3	6.7	6.7	4.7	2.0	2.0	2.7	6.7	8.7	5.3	37.3	6.2	150
	10	20.7	4.0	2.0	6.7	4.7		3.3	5.3	6.1	9.0	38.7	5.5	150
	13	0	3.3	2.0	9.7	6.6	0.0	0.4	4.7	10.0	6.7	35.3	6.7	150
	16	0.9	0.0	5.3	11.3	3.3	5.3	2.7	0.9	10.7	4.0	39.3	9.0	150
	19	10.7	4.7	7.3	8.7	0.9	2.0	5.3	7.3	4.7	3,3	40.0	6.3	150
	77	22.7	2.7	5.3	4.7	3.3	0.,	1.9	5.3	0.9	2.7	36.7	5.8	150
102	TOTALS													
1		16.4	4.4	5.2	6.9	4.7	3.3	0.4	6.0	6.9	4.7	4.7 37.6	6.1	1200

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SKY COVER

STATION STATE OF GROVES PENNSYLVANIA

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73-77

PERIOD

TOC.

DCT 01 38.1 2.6 3.9 2.6 3.2 2.6 109 0.5 2.6 1.9 0.7 20.0 7.1 7.7 6.5 3.9 1.3 1.3 15.5 7.7 5.8 8.4 3.9 4.5 1.9 16.8 6.5 5.2 5.8 4.5 4.5 3.9 3.2 2.6 5.2 3.9 3.2 2.6 5.2 3.9 3.2 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2	PERCENTAGE FREQUENCY OF TENTHS OF TOTAL SKY COVER	IL SKY COVER				MEAN	TOTAL
04 37.4 2.6 3.9 2.6 3.2 04 37.4 2.6 1.9 6.5 2.6 07 20.0 7.1 7.7 6.5 3.9 10 18.17 5.8 8.4 3.9 13 15.5 7.7 3.9 5.2 7.1 16 16.8 6.5 5.2 5.8 4.5 19 30.3 3.2 5.8 5.6 4.5 22 39.4 4.5 2.6 5.2 3.9	9	,	80	6	0	SKY COVER	NO. OF
20.0 7.1 7.7 6.5 2.6 20.0 7.1 7.7 6.5 3.9 18.1 1.7 5.8 8.4 3.9 15.5 7.7 3.9 5.2 7.1 16.8 6.5 5.2 5.8 4.5 30.3 3.2 5.8 5.8 4.5 39.4 4.5 2.6 5.2 3.9	2.6 1.9	6.1	4.5	6.1	36.8	4.9	155
18.17 5.8 8.4 3.9 18.17 5.8 8.4 3.9 15.5 7.7 3.9 5.2 7.1 16.8 6.5 5.2 5.8 4.5 30.3 3.2 5.8 5.6 4.5 39.4 4.5 2.6 5.2 3.9	1.9 1.3	4.5	6.1	3.9	35.5	4.9	155
18.1 7 5.8 8.4 3.9 15.5 7.7 3.9 5.2 7.1 16.8 6.5 5.2 5.8 4.5 30.3 3.2 5.8 5.6 4.5 39.4 4.5 2.6 5.2 3.9	1.3 3.9	4.5	5.2	1.9	38.1	5.6	155
15.5 7.7 3.9 5.2 7.1 16.8 6.5 5.2 5.8 4.5 30.3 3.2 5.8 5.8 4.5 39.4 4.5 2.6 5.2 3.9	4.5 1.9	6.5	4.5	4.5	34.2	5.6	155
30.3 3.2 5.8 5.8 4.5 30.4 4.5 2.6 5.2 3.9	3.9 2.6	5.8	7.6	5.0	36.1	0.0	155
39.4 4.5 2.6 5.2 3.9	4.5 3.2	4.5	8.4	4.5	36.1	5.9	155
39.4 4.5 2.6 5.2 3.9	3.9 3.9	3.9	2.5	7.1	50.92	4.9	155
	3.2 3.2	3.9	3.9	4.5	25.8	4.3	155
TOTALS 27.0 5.2 4.6 5.8 4.2 3.2		*	4.6	6	33.6	5.3	1240

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14793 MILLOW GROVE, PENNSYLVANIA 73-

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-	HOURS				PERCENTAG	PERCENTAGE FREQUENCY OF TENTHS OF TOTAL SKY COVER	T OF TENTHS	OF TOTAL	SKY COVER				MEAN	TOTAL
MONTH	(LST)	0	-	2	3	-	3	•	7		6	01	SKY COVER	OBS.
NOV	10	32.7	6.7	3.3	1.3	2.0	3.3	3.3	4.0	3.3	1.3	38.7	5.5	150
	40	36.7	207	6.0	4.7	4.0	.,	3.3	2.7	4.0	3,3	36.0	5.0	150
	07	16.0	6.7	12.0	3.3	4.0	2.7	4.0	0.8	4.7	1.4	36.0	5.9	150
	10	9.3	7.3	5.7	0.0	8.0	3.3	4.0	7.3	5.3	6,1	36.0	6.3	150
1	13	8.0	4.0	4.0	0.0	0.0	0.0	6.7	7.3	12.7	2.0	37.3	6.7	150
	16	9.3	3,3	4.0	0.0	7.3	8.0	4.0	7.3	6.3	9.3	32.0	6.5	150
	13	26.7	0.9	3.3	7.3	2.1	2.7	4.7	0.0	7.3	2.0	31.3	5.2	150
	22	30.7	3.3	0.4	4.0	0.4	2.0	2.7	4.7	4.7	5,3	34.7	5.3	150
TOTALS	9	20.7	5.0	5.2	4.8	60.4	3.6	4.1	5.9	6.4	4.3	4.3 35.3	5.8	1200

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WILLOW GROVE, PENNSYLVANIA 14793 STATION

73-77

PERIOD

SKY COVER

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	HOURS				PERCENTAG	E FREQUENC	PERCENTAGE FREQUENCY OF TENTHS OF TOTAL SKY COVER	S OF TOTAL	SKY COVER				MEAN	TOTAL
MONTH	(LS.T.)	0	-	2	3	,	8	9	1	80	٥	01	SKY COVER	NO. 04 085.
DEC	10	24.5	3.9	5.8	1.9	7.7	3.2	103	3.9	1.9	5.6	43.2	5.7	155
	90	23.9	3.9	4.5	91	2.6	3.2	3.2	1.9	5.00	2.6	47.7	5.9	155
	0.7	14.2	9.7	7.1	9.	5.2	3.9	2.6	1.9	0.6	3.2	42.6	6.2	155
	10	14.2	4.8	4.5	2.6	2.6	2.6	3.2	3.2	1.9	4.8	48.4	6.7	155
	13	6.5	5.2	5.8	6.5		4.5	5.8	5.8	5.5	2.6	52.3	7.2	155
	16	10.3	7.1	2.6	5.2	3.9	2.6	4.5	3.2	5.5	5.8	49.7	7.0	155
	19	20.0	3.8	7.1	5.8	2.6	9.	2.6	3.9	5.00	4.9	43,9	0.0	155
	22	20.6	7.7	3.9	3.9	3.2	1.9	2.6	3.9	5.5	3.9	43.2	0.9	155
01	TOTALS	16.8	6.5	5.2	3.4	3.5	2.8	3.2	3.5	5.0	3.9	3.9 46.4	4.4	1240

5704 SKY COVER JAN 68

WILLOW GROVE, PENNSYLVANIA

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PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

	HOURS				PERCENTAG	E FREQUENC	PERCENTAGE FREQUENCY OF TENTHS OF TOTAL SKY COVER	S OF TOTAL	SKY COVER				MEAN	TOTAL
MONTH	(1.5.7.)	•	-	2			3	•	,		6	0	SKY COVER	0.05
NAL	ALL	20.2	4.8	5.3	4.3	3.5	3.0	3.4	5.4	6.5	3.3	3.3 40.4	0.9	1240
FEB		24.9	5.0	6.5	4.4	2.9	3.6	3.9	5.1	5.4	3.7	36.5	5.6	1128
MAR		17.2	\$1.5	2.9	4.2	2.7	3.6	2.2	6.4	0.0	5.2	5.2 47.0	9.0	1240
APP		24.8	3.9	3.5	6.4	3.6	3.2	3.9	6.8	4.0	5.0	5.0 33.9	5.6	1200
MAY		16.5	0.4	4.3	6.9	3.7	4.0	3.3	5.3	7.0	4.3	4.3 40.9	6.9	1240
NOT		10.9	3,2	4.3	5.5	5.7	4.2	8.4	7.6	10.3	5.9	37.4	6.7	1200
IN		19.2	4.1	5.7	5.6	4.6	4.4	5.2	7.7	8.1	1.9	6.1 29.3	5.7	1240
AUG		15.8	4.7	4.8	9.0	5.1	4.6	3.9	6.5	8.1	5.1	35.0	6.1	1240
SEP		16.4	4.4	5.2	6.9	4.7	3.3	0.4	0.0	6.9	4.7	37.6	6.1	1200
130		27.0	5.2	4.6	5.8	4.2	3.2	2.7	4.4	5.4	3.9	3.9 33.6	5.3	1240
NDV		20.7	5.0	5.2	9.6	8.8	3.6	4.1	5.9	4.9	4.3	35.3	5.8	1200
DEC		16.8	6.5	5.2	3.4	31.5	2.8	3.2	3.5	9.0	3.9	3.9 46.4	4.9	1240
0	TOTALS	19.2	4.6	4.6	5.3	4.1	3.6	3.7	5.8	6.8	4.6	4.6 37.8	6.0 14608	14608

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PART E

PSYCHROMETRIC SUMMARIES

In this section are presented various summaries of dry- and wet-bulb temperatures, dew points, and relative humidity. The order and manner of presentation follows:

- Cumilative percentage frequency of occurrence derived from daily observations and presented by month and annual for all years combined. These tabulations provide the cumilative percentage frequency to tenths of temperature by 5-degree Fahrenheit increments, plus mean temperature, standard deviation, and total number of observations in three separate tables as follows:
- . Daily maximum temperature
 - . Daily minimum temperature
 - c. Daily mean temperature
- Extreme values derived from daily observations with extreme value given for each year and month of record available. Extremes are provided for a month if all days for a month contain valid observations. All months for a year must have valid extremes before the ANNUAL value is selected for that year. Means and standard deviations are computed for months and annual when four or more values are present for any column. of daily extreme temperatures are prepared: ö
- s. Extreme maximum temperature
- NOTE: A supplementary list also provides extreme temperatures when less than a full month is reported.
- Bivariate percentage frequency distribution and computations of dry-bulb versus wet-bulb temperature. This tabulation is derived from 3-hourly observations and is presented by month and annual, all hours and all years combined. The following information is provided: 3
- Also provided for each dry-bulb temperature interval is the total no. of observations with dry-bulb and The main body of the summary consists of a bivariate percentage frequency distribution of wet-bulb depression in 17 classes spread horizontally; by 2-degree intervals of dry-bulb temperature vertically. wet-bulb temperature combined; and again for dry-bulb, wet-bulb, and dew-point temperatures separately. Total observations for these four items is also provided in two lines at end of each tabulation table, which may require two pages in some cases.

A percentage frequency in this table of ".O" represents one or more occurrences amounting to less than .05 percent.

- Statistical data for the individual elements of relative humidity, dry-bulb, wet-bulb, and dew-point temperatures are shown in the section at the bottom left of the forms. These consist of the sum of squares $(\sum X^2)$, sums of values $(\sum X)$, means $(\sum X)$, and standard deviations (σX) . The number of observations used in the computations for each element is also shown.
- represented. Mean number of hours is shown to tenths and indicates mean number of hours per year in the annual summary, or mean number of hours per month in the tabulations by month. At the lower right of the form are given the mean number of hours of occurrence for six ranges of dry-bulb, wet-bulb, and dew-point temperatures, and total number of hours possible in the period ;

Wet-bulb temperature usually was not reported prior to 1946. Relative humidity usually was not reported prior to 1949, nor subsequent to June 1958; and was computed by machine methods for observations recorded during these periods. All values of dev-point temperature and relative humidity are with respect to water, unless otherwise indicated.

- Means and standard deviations These tabulations are derived from hourly observations and present the mean, standard deviation, and total number of observations for the eight standard 3-hour groups, by month and annual and again at the bottom for all hours combined. Records for all years available are combined. Tables are prepared for the following:
- . Dry-bulb temperature
 - b. Wet-bulb temperature
- . Dew-point temperature
- Cumulative percentage frequency of occurrence of relative humidity This summary is derived from hourly observations and presents the cumulative percentage frequency of occurrence of relative humidity by increments of 10% classes, plus the mean relative humidity and total number of observations in two tables.
- a. Table 1 is prepared by month and annual, all years combined, with month being the vertical argument.
- Table 2 is prepared by month by standard 3-hour groups, with the hour groups being the writical argument and a separate page for each month. All years are also combined for this summary. Ď.
- Percentage frequency of occurrence of dry-bulb temperature versus wind direction This tabulation is derived from hourly observations and is presented by month and annual, all hours and years combined. The main body of the summary consists of dry bulb temperatures spread vertically in four degree increments and horizontally by eight wind directions (plus calm). 9

DAILY TEMPERATURES

WILLOW GROVES PENNSYLVANIA

45-62, 65-77

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE

(FROM DAILY OBSERVATIONS)

MAXIMUM

24.00 100.00 100.00 100.00 18.897 77.0 5275 5275 5276 5376 5376 5376 61.6 ANNUAL 11.8 22.9 35.0 74.1 4.66 37.3 40.0 48.6 61.0 70.3 79.8 84.3 82.4 75.6 65.2 52.4 41.5 10.8410.33311.24110.517 9.141 8.124 5.900 6.222 8.260 8.852 9.93410.291 923 874 955 897 884 DEC 100.0 NON OCT. 15.2 32.6 57.1 76.8 90.1 100.0 SEP. AUG. 486046 J. 9.6 JON 15-60 24-10 24-10 26-10 5.0 MAY 99.9 410460 96.5 APR 99.9 42.7 29.9 10000 MAR. 97.8 -0.6 18.0 29.9 40.4 71.4 83.9 4.2 100.0 FEB. 99.8 13.6 24.3 39.4 79.0 9.68 98.6 61.8 90.2 3.8 JAN 100 TOTAL OBS. TEMP (PF) MEAN S.D. AI AI AI AI AI AI AI AI M

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DAILY TEMPERATURES

WILLOW GROVE PENNSYLVANIA STATION

MINIMUM

45-621 65-77

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM DAILY OBSERVATIONS)

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DAILY TEMPERATURES

14793 WILLOW GROVE, PENNSYLVANIA

45-62, 65-77

YEAR

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CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM DAILY OBSERVATIONS)

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NAVAL WEATHER SERVICE DETACHMENT

ASHEVILLE, NORTH CAROLINA

STATION

YEARS	STATION NAME
1946-1962 1965-1977	WILLOW GROVE, PENNSYLVANIA

MONTH

JANUARY

		DATE	1977*	1968	1977	1958	1968	1968	1968	1970	1970*	1970	1968	1968	1977	1954	1965	1977	1977	1977	1977	1946	1961	1970	1961	1948	1961	1961	1971	1966*	1977	1952	1948	1977
d.		ွ	-12.8	-17.2	-10.0	-12.2	-13.9	-15.6	-12.8	-17.2	-17.8	-16.7	-15.6	-18.3	-15.6	-14.4	-17.8	-17.2	-21.1	-20.0	-16.1	-13.9	-18.6	-16.1	-15.0	-15.0	-13.6	-14.4	-12.8	-15.0	-18.9	-15.0	+19.4	-21.1
MINIMUM TEMP	EXTREME	٥,	6	I	14	10	4	*	6	-	0	2	*	1.	4	9	0	1	9-	9-	3		•	3	3	. 3	*	9	0	•	2-	3	6-	9-
W		o°.	1.4-	4.4-	-2.9	-3.3	4.4-	-4.1	-3.6	-5.4	-5.7	9.4-	1.4-	-5.3	-3.6	4.4-	4.4-	-5.6	9.9-	4.9-	-6.5	-5.2	8.4-	-3.9	9.4-	-3.9	-3.2	-3.3	-3.9	-5.3	-5.4	-5.0	1.9-	-4.7
	AVERAGE	ш ₀	24.7	24.0	26.7	1.92	24.0	24.7	25.6	22.2	8712	23.7	23.5	4.22	0.22	24.0	1.42	0.22	20.2	20.5	20.3	22.7	23.3	54.9	23.8	0.62	20.3	26.0	0.62	4.22	22.3	23.0	21.0	23.5
		DATE	1973	1955	1950	1950	1950	1950	1946	1949	1965	1950	1975	1975	1972	1972	1962	1953	1973	1973	1661	1661	1959	6561	1961	1961	1961	1950	1974	1947	1975	1947	1974	1950
а	AE	၁့	16.7	12.2		18.9	16.7		18.9	13.9	13.9	16.1	19.4	13.3	16.7	16.7	15.0	15.6	16.7	18.3	17.2	16.7	17.2	17.8	17.2		19.4	22.8		15.6	17.2	20.0	15.0	22.8
MAXIMUM TEMP	EXTREME	H _o	62	34	57	99	62	19	99	57	57	19	29	36	62	29	59	90	62	65	63	62	63	99	63	89	67	73	67	90	63	89	65	73
MA		ى ى ،	4.6	3.2	4.2	4.2	2.9	3.8	3.6	1.4	1.6	2.9	2.7	2.2	2.6	3.7	3.5	2.6	2.2	2.8	2.9	3.1	3.4	6.4	4.2	3.4	4.6	5.2	4.2	2.3	2.3	8.2	1.7	3.2
	AVERAGE	, F	40.2			39.6		•	38.5	34.6	34.9	37.3		36.0					•							38.1	40.2	41.4		36.1	36.2	37.1	35.0	!
	-	٥,	6.0	-0.7	9.0	4.0	-0.7	-0.1	0.0	-2.0	-2.1	8.0-	-1.0	-1.6	-1.5	+.0-	+.0-	-1.5	-2.2	-1.8	-1.8	-1.1	-0.7	6.0	-0.2	-0.3	0.7	6.0	2.0	-1.6	-1.6	-1.1	-2.2	-0.8
MEAN TEMP	AVERAGE			30.8	33.1	32.8	30.7	31.8	32.0	28.4	28.3	30.5	30.2	29.5	29.3	31.3	31.2	29.3	28.0	28.8	28.8	30.1	30.7	32.9	31.7	31.5	33.2	33.7	32,3	29.2	29.5	30.0	28.0	30.0
		DAY	1	2	3	4	5	9	7	8	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	53	30	31	Monthly

*ALSO ON EARLIER YEARS

ASHEVILLE, NORTH CAROLINA

NAVAL WEATHER SERVICE DETACHMENT

WILLOW GROVE, PENNSYLVANIA

STATION NAME

STATION 14793

DAY

1945-1962 1965-1977

FEBRUARY

MONTH

1973* *6561 1962 1946 1950 1966 1972 1961 5561 1967 1968 1947 1948 1967 986 1968 1967 1961 1961 996 -15.6 -10.6 -11.7 -20.0 -14.4 -13.3 -18.3 -13.3 -13.0 -12.2 -15.6 -15.0 -15.6 -20.0 -17.2 +.41--16.1 -15.0 -15.0 -16.7 -17.2 -13.3 -18.3 -11.7 -10.6 -13.3 EXTREME MINIMUM TEMP 4 0 • --• -4.5 1.4--3.2 -5.4 -4.5 -3.8 -5.1 9.4-0.5 -3.2 -3.3 -3.4 -3.2 -4.5 -3.7 -5.3 -3.1 -1.8 -6.7 -4.7 AVERAGE 25.1 20.0 26.22.9 21.8 21.8 22.5 23.6 22.9 22.6 23.6 23.7 26.62 20.02 20.2 25.8 32.9 22.3 1960 .976 1965* 1946 1969 1948 1949 1976 1970 1962 1948 1976 1949 1974 1967 1962 1977 1961 1977 17.8 19.4 20.6 4.6 8.9 18.9 22.8 15.6 15.6 17.8 16.3 8.3 15.6 15.0 16.7 4.4 4.6 16.7 EXTREME MAXIMUM TEMP 73 64 60 13 58 90 99 62 99 69 69 67 67 5.3 4.4 4.4 2.8 3.3 2.8 4.3 3.6 5.8 5.5 5.8 4.4 5.4 4.8 6.2 7.0 3.8 4.1 3.7 8.1 6.7 AVERAGE 40.6 39.0 38.4 40.8 39.9 40.0 43.2 40.4 45.3 36.5 37.0 38.8 37.9 36.7 39.3 41.5 40.0 41.9 41.7 0.44 40.0 35.3 34.1 0.1 0.3 -2.7 4.2 2.6 -2.0 1.3 -1.9 -1.3 9.0-9.0 -0.4 0.7 0.9 1.5 3.2 -1.6 -0.3 -0.7 -1.2 = 1.3 3.1 -1.2 -0.1 -0-1 MEAN TEMP AVERAGE 32.5 29.8 36.3 34.4 33.9 34.4 31.9 33.3 37.8 28.6 30.8 31.9 33.8 33.5 76.7 5. 10 29.1 31.4 33.1 Monthly

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ALSO ON EARLIER YEARS

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NORTH CAROLINA

WILLOW GROVE, PENNSYLVANIA

14793 STATION

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STATION NAME

1945-1962 1965-1977

MONTH MARCH

		DATE	1962*	1950	1950	1950	1948	1948	1960	1960	1960	1960	1960	1960	1958	1968	1960	1949	1961	1961	1961	1949	1965	1965	1959	1986	1956	1960	1955	1966	1959	1970	1969	1
EMP	EME	္ပ	-10.6		-13.3	-12.2			-12.2		-11.1	-8.9	-12.2	-10.0	-17.8	-6.7	-6.7	-7.2	-8.9	-12.2	-14.4	-10.0	-	-6.7	-6.7	-5.6	-7.8	-6.7	-5.6	-6.1	-6.7	-8.3	-3.6	
MINIMUM TEMP	EXTREME	40	13	80	8	10	10	11	10	11	12	16	10	14	0	20	20	61	16	10	9	14	12	20	20	22	87	20	22	21	20	17	22	
N	E .	00	-2.2	-2.2	9.1-	-1.7	-0.8	-1.2	-1.0	-2.5	-2.2	-1.0	-1.1	-0-1	-0.3	0.7	9.0	6.0	-0.5	-1.2	-0.1	0.8	0.8	6.0	0.0	1.2	4.0	6.0	1.8	2.2	2.3	3.1	2.6	-
	AVERAGE	u.	0.82	28.1	29.1	58.9	30.6	8.62	30.2	27.5	28.0	30.2	30.1	30.7	31.5	33.2	33.0	35.5	31.1	6.62	31.8	33.5	33.5	33.7	33.4	34.1	32.7	33.7	35.2	35.9	36.2	37.5	36.7	-
		DATE	1972	1972	1972*	1974	1976	1959	1946	1950	1977	1955	1977*	1977	1946	1957	1945	1945	1945	1969	1945	1945	1948	1948	1953*	1959	1959	1976	1949	1945	1945	1977	1945	
a.	JVE	00	21.7	22.8	17.8	24.4	3	17.2	21.1		17.8	21.1	20.6	18.3	20.0	3	20.6		27.8	19.4	23.3	7	27.2	24.4	20.0		23.3	21.1	24.4	27.2	29.4	27.2	24.4	
MAXIMUM TEMP	EXTREME	u.	11	73	64	16	75	63	70	69	99	70	69	69	68	16	69	90	82	67	74	81	81	16	89	69	74	70	16	81	85	81	16	-
	3	500	6.5	4.9	6.9	6.7	8.7	7.4	7.4	6.8	7.0	7.9	7.9			9.2			8.2		8.8		10.8	6.6		11.8		11.2		12.8	13.4	12.3	11.9	1
	AVERAGE	40	43.7	43.5	44.4	44.1	47.6	45.3	45.4	44.2	44.6	46.3	46.2	8.94		48.5		49.2	46.7	45.4	47.8	51.1	51.4	6.65	51.5	53.2		52.1		55.0	56.2	54.1	53.5	ı
0		5,	2.2	2.1	2.7	2.5	3.9	3.1	3.2	2.2	5.4	3.5	3.4	3.8	4.1	6.9	5.2	6.4	3.8	3.1	4.3	5.7	5.8	3.4	5.8	6.9	5.2	6.1	6.8	7.5	7.9	7.7	7.3	-
MEAN TEMP	AVERAGE	9.	35.9	35.8	36.8	36.5	39.1	37.5	37.8	35.9	36.3	38.3	38.2	38.8	39.3	6.04	41.3	8.04	38.9	37.6	39.8	42.3	42.5	\$1.8	42.5	43.7	41.3	42.9	44.3	45.5	46.2	45.8	45.1	
	L	DAY	1	2	3	4	6	9	7	00	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	36	27	28	29	30	31	-

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'ALSO ON EARLIER YEARS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NORTH CAROLINA 1945-1962 1965-1977 WILLOW GROVE, PENNSYLVANIA

STATION NAME

STATION 14793

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APRIL

MONTH

19704 1965* 1960* 1961 1950 1950 1972 1977 1950 1950 1950 1950 1956 1956 1965 1954 1948 1975 1972 1946 1961 9.0 -3.9 -5.6 -1.7 -2.8 +.4-4.4--3.9 -2.2 -5.6 -5.0 -1.7 -1.7 9.0 9.0-9.0--5.6 EXTREME MINIMUM TEMP 22 33 26 31 27 22 5.0 7.9 3.6 2.2 3.3 3.6 6.3 9.9 5.8 3.3 7.1 6.3 AVERAGE 37.5 41.0 30.8 0.00 42.4 36.5 1974# 1976 1976 1976 1976 1960 1950 1959 1960 1960 1976 1960 19461 1954 1959 1955 1955 1977 1960 1997 1977 1957 25.6 25.0 20.6 28.9 26.7 33.9 29.4 28.3 33.9 26.7 28.3 27.8 28.9 31.7 32.2 31.7 31.7 26.7 32.2 54.4 27.8 30.0 31.1 29.4 EXTREME MAXIMUM TEMP 66 84 2008000 200 940960886886 81 17.1 17.0 18.5 18.8 13.3 13.2 14.5 14.8 5.4 14.6 18.8 16.9 16.0 3.6 13.0 12.7 14.2 17.3 17.1 17.7 17.7 16.1 16.1 16.2 18.6 16.1 AVERAGE 56.4 54.8 57.6 58.1 57.1 55.9 55.7 61.9 63.1 63.9 66.3 62.8 63.9 55.4 58.6 999 60.6 61.0 59.7 58.3 62.6 65.8 12.6 11.9 11.8 10.6 10.6 11.5 12.6 12.4 8.2 4.8 7.9 7.4 8.2 9.0 11.3 13.5 13.3 11.2 9.1 11.1 12.1 11.2 13.0 MEAN TEMP AVERAGE 46.7 47.0 46.8 46.2 49.5 48.4 52.4 51.9 54.7 55,2 53.7 34.6 56.3 26.0 53.4 53.2 46.7 45.4 51.0 Monthly DAY 15 130 22 25 30 12 16 17 19 8 21 24 92 8 8 0 : 13 14 3 27

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ALSO ON EARLIER YEARS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NORTH CAROLINA

DAILY AVERAGE/EXTREME TEMPERATURES

1945-1962 1965-1977 WILLOW GROVE, PENNSYLVANIA

STATION NAME

14793 STATION

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	MEAN TEMP	EMP		M	MAXIMUM LEMP	AL			M	MINIMOMINEME	4	
L	AVERAGE	GE	AVERAGE	AGE	EXTREME	ME		AVERAGE	3.5	EXTREME	ME	
DAY	.	00	u °	၁့	H.	o°.	DATE	u.	၁့	H _o	္စ	DATE
-	57.0	13.9	67.3	19.7	82	27.8	1957	40.5	8.1	36	2.2	1968
2	56.8	13.8	66.1	18.9	81	27.2	1981	47.5	8.6	36	2.2	1945
3	56.5	13.6	65.8	18.8	85	29.4	1965	47.3	8.5	34	1.1	1966
4	55.8	13.2	4.69	18.6	98	30.0	1949	46.2	7.9	33	9.0	1997
s	56.1	13.4		19.3	87		1955	45.5	7.5	33	9.0	1966
9	58.3	14.6	69.3		06	32.2	1949	47.3	8.5	38	3.3	1970
1	56.4	13.6		19.6	89		1959	45.7	4.6	35	1.7	1970*
00	36.0	13.3		18.9	82	27.8	1957	0.04	7.8	32	0.0	1947
6	56.5	13.6	67.2	19.6	98	30.0	1957	45.9	1.7	58	-1.7	1947
10	\$8.9	14.9	69.2	20.7	68	31.7	1970	48.5	9.5	33	9.0	19664
11	59.4	15.2		20.8	68	31.7	1953	4.04	6.4	33	9.0	1966
12	61.1	16.2	71.6	22.0	06	32.2	1959	6.06	10.5	37	2.8	1969
13	61.0	16.1	71.1	21.7	88	31.1	1970	51.0	10.6	37	2.8	1969
14	59.5	15.3	70.4	21.3	86	30.0	1956	49.2	9.6	38	3.3	1961
15	61.3	16.3	71.6	22.0	86	30.0	1957	51.0	10.6	1,	8.0	1966
16	61.6	16.4	72.2	22.3	06	32.2	1991	51.0	10.6	39	3.9	1959
17	63.0	17.2	73.8	23.2	89	31.7	1981	1.25	11.2	36	1.1	1986
18	6119	16.6	71.1		88	31.1	1977	52.7	11.5	04	4.4	1973
19	62.2	16.8	71.6	22.0	98	30.0	1971	52.9	11.6	37	2.8	1973
20	61.8	16.6	71.0	21.7	87	30.6	1959	52.6	11.4	**	6.3	1950
21	65.6	17.2	72.6		984	28.9	1977*	53.3	11.8	43	6.1	1961
22	63.1	17.3	73.8	23.2	89	31.7	1959	52.4	11.3	42	9.6	1948
23	63.7	17.6	73.8		87	30.6	1970	53.6	12.0	63	6.1	1976
24	62.5	16.9		22.3	87	30.6	1955	52.9	11.6	39	3.9	1956
25	62.2	16.8		21.8	84	28.9	1955	53.2	11.8	38	3.3	1956
26	63.0	17.2	72.5	22.5	88	31.1	1965	53.5	11.9	41	5.0	1972
27	61.9	16.6			89	31.7	1965	52.7	11.5	37	2.8	1969
28	63.5	17.5	74.3	23.5	16		1959		11.6	43	6.1	1961
53	64.1	17.8			26	33.3	*6961	6.45	12.7	42	9.6	1953
30	63.3	17.4	72.7	22.6	88	31.1	1969			14	9.0	1965
31	65.1	18.4	75.1		16	32.8	1956	55.2	12.9	6.3	6.1	1965
Manchin	40 0		300	,	-			, V		-		

*ALSO ON EARLIER YEARS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NORTH CAROLINA

DAILY AVERAGE/EXTREME TEMPERATURES

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1945-1962 1965-1977

JUNE

MONTH

		DAT	7	7.2 1966	1	.2 1	8.3 1946	.7 1	1 9.	1	.2 1	.8	1	8	1	9 1	9 1	4 1	4 1	1	1	.8		0.0	.4.	1.7 1972	.8	2.2 1965	9.4 1965	.0	1 6.	3.3 1954	
MINIMUM TEMP	EXTREME	٥° ع ،	43							. 54					1						1			-		53 1	1	1		1		-	
MIM	E	၁့	13.7		13.6	13.2	14.0	14.1	14.6	14.1	13.7	14.6	14.6	15.7	16.3	15.2	15.3	15.9	15.8	15.1	5.	15.8	16.7	16.8	16.6	•	18.3	•	17.6	17.4	17.7	18.6	
	AVERAGE	J.,	90.06	56.5	56.5	55.7	57.2	57.3	58.3	57.3	60.3	58.2	58.3	60.2	61.3	59.4	59.5	9.09	60.5	1.65	60.5	4.09	62.1	2	61.9	62.4	65.0		63.6	63.3	63.8	4.69	
		DATE	1991	1970+	1970	1661	1966*	1953	1971	1971*	1959	1959	1973	1967*	1961	1956	1957	1957	1957	1957	1957	1953	1953*	19564	1965#	1975*	1952	1952	1966	1969*	1959	1959	
AP .	ME	၁ ့	32.2	31.1	31.7	30.0	31.1	32.8	32.2	32.8	34.4	34.4	32.8	32.2		35.6	35.6	37.2	36.1	36.7	32.8	33.3	34.4	32,2	33.9	33.3	36.1	37.2	35.0	33.9	35.6	36.1	
MAXIMUM TEMP	EXTREME	.	06	88	68	87	98	16	90	16	76	76	16	06	95	96	96	66	16	96	16	26	96	90	93	92	44	66	95	63	96	44	
W	3E	၁့	24.3			54.9		26.1	26.2	25.9	26.1	25.9	26.6	27.4	25.9	25.2	25.8	25.8	26.6	26.0	25.8	26.7	26.5	26.9				8	28.8		28.6	29.3	
	AVERAGE	٠ .	75.7	75.8	75.7	76.9		79.0	79.1	78.7	78.9	78.7	79.8	81.4	78.6		78.5			78.8		0.08	79.7	80.5	1.	83.8	3.	83.1	83.8	83.2	83.5	84.8	
MP	J.	၁့	18.9	18.9	18.9	19.1	19.7	20.1	20.4	20.0	50.9	20.2	20.6	21.6	21.1	20.2	20.6	20.8	21.2	20.5	20.8	21.2	21.6	21.9	22.1	22.8	23.4	23.1	23.2	22.9	23.1	23.9	
MEAN TEMP	AVERAGE	.	1.99	66.1	66.1	66.3	67.5	68,1	68.7	0.89	9.69	4.89	69.1	70.8	70.0	4.89	0.69	69.5	70.1	68.8	69.5	70.2	10.9	71.4	71.8	73.1	74.2	73.6	73.7	73.2	73.6	75.1	
	L	DAY	-	2	3	4	2	9	1	80	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	53	30	31

*ALSO ON EARLIER YEARS

5725 DAILY ATRAGE/EXTREME TEMP MER 1978

DAILY AVERAGE/EXTREME TEMPERATURES

WILLOW GROVE, PENNSYLVANIA

STATION NAME

14793 STATION

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*NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NORTH CAROLINA

1945-1962 1965-1977

MONTH ATOR

		DATE	1952	1969	1957	1969	1961	1956	1968	1969	1969	1953	1953	1973*	1974	1960	1960	1960#	1946	1976*	1965	1965	1966	9961	1977	1973	1953	1976	1977	1977	1972*	0	1956	1976
Ь	1	ွ	12.8	11.1	11.7	12.2	12.8	12.2	11.7	11.7	10.6			2.		14.4	•	13.3	13.3	14.4	•	12.8	11.1	13.3	13.3	14.4	11.7	9.01	12.8	13.3	13.3	11.7	12.8	10.6
MINIMUM TEMP	EXTREME	40	58	52	53	54	58	54	53	53	15	58	54	55	56	28	23	96	96	58	09	58	52	96	96	28	53	15	55	96	96	53	58	21
M		00	18.5	18.0	18.2	17.8	17.8	17.6	17.1	17.6	17.7	18.3	17.9	17.9	18.6	19.4	18.9	18.6	18.6	19.6	19.8	19.0	18.6	18.8	19.2	18.6	18.3	17.9	19.1	19.4	18.8	19.0	19.4	-
	AVERAGE	¥°	65.3		8.49	1.49	1.49		8.29	63.6	8.69	0.69	2.49	64.3	4.69	6.09	0.09	65.5	65.5	67.3	67.7	2.99		62.69	66.5		6.99			6.09	•	2.99	0.79	6 6 9
		DATE	1945	1966	9961	19961	1955	1955	1611	1671	1974	1974	1959	1966	1966*	1954	1953*	1977	1953	1953	1977	1940	1957	1955	1955+	1968*	1970+	1966	1991	1954*	1954	1954	1954	77701
	E	o°.		37.2			36.1		33.9	35.6	_	-	-	33.9	35.0		33.3	36.1	36.1	37.2	35.6			37.2		32.8	32.8	35.0	35.6	35.0	35.0	35.0	7.	
MAXIMUM LEMP	EXTREME	F 0	96	66	102	86	10	63	63	96	63	26	16	66	96	16	92	26	16	66	96	96	102	66	86	16	16	56	96	96	98	95	100	
MA	E	00	29.6	30.1	30.1	28.9	27.9	1.82	27.9					28.6	28.6	29.0	28.5	29.5	29.5	30.1	30.1	1.62	29.7	29.1	28.9	28.7	28.9	29.0	29.5	29.6	29.5	29.0		. 00
	AVERAGE	L °		86.1			82.2	82.5	82.2	83.7		82.7		83.5	83.5	84.2	83.3	84.5	85.1	86.2	86.2	84.3	85.4	4.48	84.1	83.7	84.1	84.2	85.1	85.3	84.5	84.2	85.1	6 70
		000	24.1	24.1	24.1	23.4	55.9	8.22	22.5	23.2	23.3	23.2	23.0	23.3	23.6	24.2	23.7	23.9	24.1	24.8	24.9	24.1	24.2	23.9	24.1	23.6	23.6	23.4	24.3	24.5	24.0	24.0	24.4	
MEAN LEMP	AVERAGE	40	75.3	73.3	75.4	74.1	73.2	73.1	72.5	73.7	74.0	73.8	73.4	73.9	74.5	75.6	74.7	75.0	75.3	76.7	16.9	75.3	75.5	75.1	75.3	74.5	74.5	74.2	75.7	76.1	75.2	75.2	76.0	
	L	DAY	-	2	6	4	2	9	7	00	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	53	30	31	

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*ALSO ON EARLIER YEARS

WILLOW GROVE, PENNSYLVANIA STATION NAME

14793 STATION

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NORTH CAROLINA

1945-1962 1965-1977

AUGUST

MONTH

	MEAN TEMP	EMP		M	MAXIMUM TEMP	MP			M	MINIMOM TEMP	MP	
	AVERAGE		AVERAGE	GE	EXTREME	ME		AVERAGE	36	EXTREME	ME	
DAY	4.	3°	٥,٤	٥,	H 0	o°.	DATE	H _o	٥,	4 °	ပ	DATE
1	75.1	23.9	83.9		66	35.0	1955	60.3	19.1	09	15.6	1993
2	73.6	23.1	82.2	27.9	66	37.2	1985	0.69	18.3	24	12.2	1947
3	74.3	23.5		8	66	5.	1975*	4.69	18.6	54	12.2	1953
4	72.9	22.7		27.7	89	-	1955	1.40	17.8	52		1991
5	72.4	22.4		27.2	44	36.1	1955	63.9	17.7	84	8.9	1991
9	72.3	22.4	81.8	7.	86	36.7	1955	62.7	17.1	51		1981
7	73.2	22.9		27.9	92	3.	1955*	64.2	17.9	53	11.7	-
80	73.9	23.3			92	33.3	1949	65.1		96	13.3	-
6	74.6	23.7			95	5	1949		18.9	99	15.0	-
10	74.9	23.8	83.8		16	-0	1949	62.6	8	54	12.2	-
11	13.9	23.3			16		1949	64.7	18.2	84	8.9	-
12	73.3	22.9	82.6	28.1	06	32.2	1959	0.49	-	24	12.2	-
13	72.4	22.4		27.4	92	3	1947	63.4	17.4	51	10.6	-
14	73.7	23.2			92	3	1959	64.3	-	52	11.1	-
15	74.7			6	63	3	1959*	65.0	16.3	53		1972
16	74.3	23.5		28.7	63	3.	1959*	65.1	18.4	53	11.7	1945
17	73.4	23.0		27.8	63	33.9	1959	6.99	8	57	13.9	1957
18	72.5	22.5		27.6	92	3	1956	63.4	-	58	12.8	1961
19	72.2	22.3	•	27.4	16		1966*	63.1	17.3	52		1953
20	72.3	22.4	81.7	-	76		1955	65.3	17.2	31	10.6	1949
21	71.3	21.8		27.3	46		1955	-	9	64		1977
22	71.8	22.1		1.	16	32.8	1959	62.2	16.8	52	11.1	1970
23	70.1	21.2		26.3	88	-	1947		16.1	64	4.6	1952
24	70.1	21.2	79.7	26.5	9.1	32.8	1947	60.5	15.8	65	8.3	1952
25	71.5	21.9		27.5	46	34.4	1948	61.5	16.4	20	10.0	1946
26	72.3	22.4	82.5	28.1	86	9	1948	62.1	16.7	51		1977
27	73.6	23.1		28.7	86	36.7	1948	63.6	17.6	53		1966
28	74.5	23.6			86	36.7	1953	9.40	18.1	8.	8.9	1968
62	74.4	23.6		2.62	86	36.7	1953	4.49	18.0	46		1965
30	74.4	23.6	84.3	29.1	66	37.2	1953	64.5	18.1	64		1965
31	72.4	22.4		27.4	100	37.8	1953	4.69	17.4	64		1965
Monthly	73 1	9 66	7 68	V 86	401	0 6.0	1062	4 4 0	6 61	97		. 948

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*ALSO ON EARLIER YEARS

1919

DAILY AVERAGE/EXTREME TEMPERATURES SEPTEMBER MONTH 1945-1962 1965-1977 YEARS

WILLOW GROVE, PENNSYLVANIA STATION NAME

14793 STATION

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"NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NORTH CAROLINA

		DATE	1961	1970	1961	1976	1972	1949	19764	1981	1986	1986	1969	1958	1961	1975#	1975	1966	1959	1959	1959	1956	1956	1948	1967	1974+	1950	1950	1957	1957	1981	1991	
٩	AE	ပ္	10.0	8.9	6.7	11.1	9.6	9.6	10.0	8.3	7.2	7.2	7.2	6.7	1.9	6.7	5.0	6.7	*.*		3.9	4.4	2.0	6.1	4.4	3.3	3.3	3.3	1.1	1.7	1.7	8.5	
MINIMUM TEMP	EXTREME	Jo.	90	84	44	52	64	64	50	64	64	4.5	4.5	75	69	**	14	75	04	04	39	04	41	63	04	38	38	38	34	38	35	37	
M	E	٥,	17.1	16.9	16.2	16.1	16.3	16.0	15.2	15.5	15.1	14.8	14.2	13.9	13.8	14.6	13.7	13.8	13.6	13.7	13.8	13.8	13.7	12.3	11.6	11.1	11.4	11.1	11.2	11.8	10.6	10.5	
	AVERAGE	٠ •	62.7	62.5	61.1	61.0	61.3	8.09	59.3	89.6	59.1	58.6	57.6	57.0	8.95	58.2	56.7	56.9	50.5	56.6	56.9	56.9	56.6	54.2	52.8	51.9	95.6	0.25	-	53.2	:	6.06	, 43
		DATE	1953	1953	1953	1973+	1961	+1161	1954	1959	1959	19654	1961	*1961	1952	1976	1970	1970	1972	1965*	1965	1955	1965	1970	1970	1970	1970	1958	1946	1959	1945	1953	
d	/E	0,	3.	38.9	36.7	33.3	3.		31.7	31.1	34.4	31.7	N	3	35.0	-	-	2	30.6	-	1-	30.0			32.8			32.2			30.0		-
MAXIMUM TEMP	EXTREME	u.	66	102	86	92	92	68	89	88	76	99	16	35	95	38	88	16	87	80	88	90	12	91	16	16	16	06	83	94	96	85	
MA	31	o,					27.3					25.2		24.6	25.1	24.9	24.4	24.3	24.1	24.2	24.3	23.4	22.7	22.9	22.2	21.4	21.8					20.2	
	AVERAGE	#°	81.7	80.3	80.3	80.7	81.1	79.3	78.7	78.7	77.2	17.3	76.5	76.2	77.2	76.9	76.0	75.7	75.3	78.8	75.7	74.2	72.8	73.2	72.0	70.6	71.3	72.3	71.2	70.8	70.1	68.4	
a		0,	22.3	21.9	21.5	21.6	21.8	21.1	20.6	20.7	20.1	19.9	19.4	19.2	19.4	19.7	19.1	19.1	18.8	18.9	19.1	18.7	18.2	17.6	6.91	16.2	16.7	16.7	16.5	16.7	15.9	15.4	
MEAN TEMP	AVERAGE	u ,	72.2	71.4	70.7	70.8	71.2	0.07	0.69	69.3	68.1	61.9	67.0	9.99	67.0	67.5	4.99	66.3	62.6	0.99	66.3	65.6	64.7	63.7	62.4	61.2	62.0	62.1	61.7	62.0	9.09	59.7	1
		DAY	-	2	6	4	10	9	7	00	6	10	11	12	13	14	15	16	17	18	19	8	21	22	23	24	25	26	27	288	82	30	31

*ALSO ON EAPLIER YEARS

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NORTH CAROLINA

1945-1962 1965-1977

WILLOW GROVE, PENNSYLVANIA STATION NAME

STATION 14793

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MONTH OCTOBER

MEAN TEMP	20,030,4		MAXIMUM TEMP	MP		2000		MINIMUM TEMP	MP	
AVERAGE	AVERA	, ce	• EXIMEME	0	2440	AVENAC	л С	° E X 1 KE	o o	DATE
8.7	6	20.7	-	28.3	1984#	51.1	0	37	2.8	76
15.6	70.0	21.1	83			50.3	10.2	37	2.8	1972
15.4		20.8	84	8	0	49.9		35	1.7	1974
14.5		20.2	84		-	47.8		32	0.0	1945
15.1			89	-	66	6.99		34	1.1	1965
14.9			88	31.1	1959	48.8		31	-0.0	1958
14.9	0.89	20.0	84	28.9		49.6		34	1.1	1958
14.6		20.0	18	7.	1959	48.5		32	0.0	1953
15.0	68.3		83		1959#			37	2.8	1972
14.6			83		1958	49.1		31	9.0-	1972
14.0	4.99	19.1	84	28.9	1949	48.1		30	-1.1	1972
13.9	66.5		84		1954	47.7		33		1957
13.3		18.9	86		1954	46.0		36	2.2	1957
13.7			83		1975	47.0	8.3	33		1972
14.6			82	27.8	1975*	4.84		30	3.3	1972*
13.7		9.	62	27.8	1958	46.3		37	2.8	1972*
13.1		18.4	4	26.1	1958*	0.94		31	9.0-	1970
12.8		18.2	79	26.1	1983	45.3		32		1977
11.6		16.4	19	26.1	1945	0.44	•	92		1976
11.6	62.2	16.8	79	26.1	1969	43.5	•	59	-1.7	19724
11.1			40	28.9	1947	4.24		52		1952
11.8	2.	17.0	77	25.0	1975	44.1	•	32	0.0	1974
12.8	4.49	18.0	84	28.9	1947	45.6	7.6	53	-1.7	1969
12.7	4.69		73	22.8	1973#		•	52	•	1969
11.1	60.1	15.6	73	2.	1954	43.8		33		1969#
10.6	60.1	15.6	7.5	23.9	1947	1.24	5.6	28	-2.2	1952
10.8		15.7	74	23.3	1947	42.6		28		1976
10.6	59.9		16		1947	0.24	3.6	26	-3.3	1976
11.4		16.7	18	27.2	1971	6.24	6.1	27	-2.8	1965
10.6	60.2		80	1	1946	41.7		28	-2.2	1961
11.4		16.9	80	26.7	1946	42.8	0.9	26		1966
13.2		18.4	89	31.7	1959	46.3	7.9	28	-3.9	1969*

*ALSO ON EARLIER YEARS

"NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NORTH CAROLINA

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DAILY AVERAGE/EXTREME TEMPERATURES

14793	WILLOW GROVE,	W GROVE, PENNSYLVANIA	1945-1962 1
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		DATE	1954	1976	1991	1981	1981	1967	1954	1961	1976	1956	1956	1987	1954*	1977	1967	1961	1970	1959	1991	1961	1991	1969	1970	1970*	1970	1950	1974	1955	1955	1976		4076
ΛP	ME	၁့	-2.2	-2.2	-3.9	-5.0	+.4-	+.+-	-2.2	+.4-	-7.2	-2.8	-5.0	-3.3	-3.9	+.+-	-6.1	-7.2	-3.6	-7.8	-5.6	-6.1	8 - 1 -	-7.8	1-6-7	-8.3	-7.2	-7.2	-6.1	6.8-	-10.6	-10.6		0.01-
MINIMUM TEMP	EXTREME	J. 0	28	28	25	23	24	24	28	24	19	22	23	56	52	54	2.1	61	22	18	22	21	81	1.8	50	1.9	61	67	12	99	13	13		£ 7
M		o.	6.7	15.6	7.2	7.1	5.1	3.2	3.4	3.9	3.4	3.2	2.1	3.5	3.1	3.4	3.0	2.7	2.3	2.5	2.1	1.6	1:1	1.0	-0.5	9.0	2.0	0.1	0.3	4.0	-1.1	-1.8		9.7
	AVERAGE	₽°	0.44	0.09	45.0	44.7	41.1	37.7	38.2	39.0	36.1	37.8	35.7	38.3	37.5	36.1	37.4	30.8	36.2	36.5	35.7	34.8	34.0	33.8	31.1	33.1	32.4	32.1	9.26	32.8	30.1	8.82		21.1
		DATE	1950	1950	1975	1974	1961	1948	1975	1975	1975	1975	1949	1967*	1955	1955	1973	1956	1953	1953	1957	1953*	1956	1953	1953	1958	1973	1946	1960*	1973	1968	1975+		1990
a	/E	٥,	28.3	27.2	23.9	24.4	25.0	24.4	22.8	24.4	23.9	21.1	22.2	18.9	21.7	22.2	24.4	20.0	20.6	21.7	21.1	20.6	18.3		19.4	19.4	20.6		17.8	20.0	0	14.4		28.3
MAXIMUM TEMP	EXTREME	u 0	83	81	75	16	77	76	73	76	75	0,	72	99	7.1	72	76	89	69	11	70	69	69	67	67	67	69	69	49	89	99	58		63
MA		, o.	15.8	16.4	15.3	14.6		12.6		12.9	12.2		11.1	12.8		12.7	11.2	12.4		11.2				8.8	9.1	6.6		9.5		9.6	8.9			11.3
	AVERAGE	¥.0	60.5				55.6	54.7		55.2		93.0	52.0	55.1	53.1	54.9	52.1		52.7		52.5				48.3			48.5		49.2	44.2	41.4		32.4
		٥,	11.3	16.0	11.2	10.8	9.1	7.9	8.1	8.4	7.8	7.5	9.9	8.2	7.4	8.1	7.1	7.4	6.9	6.8	6.7	5.8	5.4	8.4	4.3	5.3	4.6	4.6	4.6	5.0	2.8			1:1
MEAN TEMP	AVERAGE	J.	52.3	80.9	52.2	51.4	48.4	46.2	46.6	47.1	0.94	45.5	43.9	46.8	45.3	46.5	44.8	45.4	44.4	44.3	44.1	45.4	41.8	40.0	39.7	41.5	40.3	40.3	40.2	41.0	37.1	35.2		44.7
	L	DAY	-	2	6	4	S	9	7	80	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	53	30	31	Monthly

*ALSO ON EARLIER YEARS

*ALSO ON EARLIER YEARS

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE, NORTH CAROLINA

WILLOW GROVE, PENNSYLVANIA

14793 STATION

STATION NAME

1945-1962 1965-1977

DAILY AVERAGE/EXTREME TEMPERATURES

MONTH

DECEMBER

	3E	°	•	•	•	•
	AVERAGE	L °	5.82	27.9	29.4	59.9
		DATE	16.7 1975	1970	1950	1973
Ь	ME	o°.	16.7	17.2	18.3	19.4
MAXIMUM TEMP	EXTREME	L 0	62	63	65	67
MA	E	၁့	3.6	6.1	7.5	8.1
	AVERAGE	٠ •	42.1	45.9	45.5	46.6
		٥,	1 . 8	1.9	3.0	3.5
MEAN TEMP	AVERAGE	. L	35.3	35.4	37.4	38.3
	L	A.3	-	2	3	4

				100	MAKEN OW LEWIN	40			2	INITIALINI OINI LEINIL	IN	
_	AVERAGE	36	AVERAGE	36	EXTREME	ME		AVERAGE	3E	EXTREME	ME	
A.3	L	٥	.	၁့	u.	၁့	DATE	₽ °	၁့	¥ °	ွ	DATE
	35.3	1.8		9.6	62	16.7	1975	58.8		12	-111.1	1976
2	35.4	1.9	45.9	6.1	63	17.2	1970	27.9	-2.3	9	-14.4	1946
3	37.4	3.0	45.5	7.5	65	18.3	1950	29.4	-1.4	6	2	1976
4	38.3	3.5	46.6	8.1	67	19.4	1973	59.9	-1.2	10	-12.2	1966
2	39.1	3.9		8.3	62	16.7	1973	31.3	+.0-		-7.8	
9	39.1	3.9	47.4	8.6	99	18.9	1953*	30.7	-0.7		-8.3	
7	39.5	0.4	47.0	8.3	70	21.1	1956	31.3	4.0-		+.6-	
80	37.7	3.2	45.1	7.3	69	18.3	1966	30.4	6.0-		-10.0	
6	37.4	3.0	4.4.4	6.9	69	20.6	1966	30.3	6.0-		-10.6	
10	37.4	3.0	44.2	8.9	70	-	19461	30.0	-0.8		-12.2	
=	34.5	1.4	42.1	5.6	63	17.2	1952	27.6	-2.4		-12.8	
12	34.9	1.6	41.3	5.2	58	14.4	1959	28.6	-1.9	6	-12.8	
13	36.2	2.3	43.5	4.9	61	16.1	1949	58.9	-1.7		-13.9	
14	34.5	1.4	40.8	6.4	55	12.8	1977	28.3	-2.1	10	-12.2	1976
15	33.4	0.8		4.5	69	18.3	1975	26.7	-2.9	14	-10.0	1958
16	32.2	0.1	•		99	•	1971	25.8	-3.4	0	-12.8	1991
17	32.1	0.1	•	3.8	54		1956	25.3	-3.7	1.	-18.3	1951
18	31.9	-0.1	•	3.8	36	13.3	1966	25.0	-3.9	-1	-18.3	1981
19	31.9	-0.1	38.8	3.8	61	16.1	1957	25.0	-3.9	10	-12.2	1981
20	33.1	0.6		4.6	62	16.7	1957	25.9	-3.4	œ	-13.3	1955
21	33.2	0.7	•	4.7	88	15.0	1997	25.9	-3.4	\$	-15.0	1955
22	31.8	-0.1	•	3.1	9	15.6	1967*	26.1	-3.3	6	-12.8	1958
23	32.2	0.1	•	4.3	62	16.7	1949	24.7	-4.1	8	-15.0	1960
24	31.9	-0.1	38.0	3.3	98	12.2	1952	25.9	•	4	-13.9	1960
25	31.7	-0.5	•	3.6	66	15.0	1965	25.0	-3.9	12	-111.1	1969*
26	32.0	0.0	•	4.1	9	15.6	1973*	24.6	-4.1	10	-12.2	1948
27	30.4	6.0-	37.2	2.9	63	17.2	1973	23.7	9.4-	3	-16.1	1950
28	32.3	0.5	•	4.7	90	15.6	1946	24.5	-4.3	9	-14.4	1960
29	32.1	0.1	39.5	4.2	9	15.6	1946		-4.0	11	-11.7	1977
30	33.5	8.0	40.1	4.5	54	12.2	1954	56.9	-2.8	9	-14.4	1976
31	32.5	0.3	39.6	4.2	99	17.8	1965	25.5	-3.6	11	-11.7	1976
Monthly	34.4	1.3	6.1.5	*	10	21.1	1056	27.3	4.6-			

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EXTREME VALUES

MAXIMUM TEMPERATURE

45-62, 65-77

WILLOW GROVE, PENNSYLVANIA

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DEC. MONTHS						65		•		2		_	62 102	5	_	•	•		*	01 6	60 92	80		3	4	4		6	6 5	6	
NOV	7.1			16	72	83	69	71	72	62	72	72	10	67	73	67	11		89	68	99		68	40	17	99	16	080	16	61	
OCT.		42			84	en ec		4	4	98	82	82	16	63	68	81	80		75	16	84	83	79	81		20	19	78	83	74	
SEP.	88		87	88	88	98	68	88	102		99	80	91	06	76	87	36		68	06	282	88	69	16	06	87	85	79	08	88	
AUG.	63	87	93	86	44	06	63	06	100			63	68	91	63	92	06		16	92	98	93	89	06	16	06	68	88	66	90	
JUL.	96			95		91	96	96	66	100	66	95	102	56	36	91	95		06	102	88	6 8	92		96	92	26	63	88	88	
, NOT			06		9.6	63	90	66	96	16	68	96	66	89	64	06	68		63	9.8	62	83	63	06	16	96	91	26	92	92	
MAY	89		98	68		91	06	.c	68	3) RJ	68	16	87	80	92	82	98		68	60	7.8	080	26	68	98	83	81	87	8 9	83	
APR.	63		80	76	81	78	83	81	82	82	82	8.8	06	00	83	89	82		79	7	82	08	98	82	74	83	82	88	11	63	
MAR.		7.6				70	95	67	99	70	70	70	76	34	74	12	74		57	99	69	78	67	69	99	73	72	16	63	75	
Ę		99	25	69	73	20	10	52	69	17	63	61	61	52	53	62	99	57	9	53	57	64	6.3	53	61	90	26	67	26	99	
JAN.							63	61	09	09	24	20	09	26	49	25	55	29		26	69	47	84	40	94	62	69	67	67	62	
YEAR	43	46	47	48	64	30	51	32	53	36	55	96	57	36	88	09	19	62	6.5	99	67	99	69	70	7.1	72	73	74	75	70	

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EXTREME VALUES

MAXIMUM TEMPERATURE

WILLOW GROVES PENNSYLVANIA

14793 STATION

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45-62, 65-77

WHOLE DEGREES FAHRENHEIT

MONTHS	16								1.96	3.472	1466
DEC.	55								61.5	4.578	744
NOV.	=								10.9	5.276	910
OCT.	69								80.0	4.622	908
SEP.	89								88.8	4.071	
AUG.	16								91.9	3.139	
JU.	46								94.5	4.022	806
JUN.	00								92.3	3.207	840
MAY	88			July 1					85.8	3.688	868
APR.	40	- 114							61.8	4.425	870
MAR.	30						X X		70.0	6.697	837
FEB.	64								59.6	7.185	847
JAN.	4 3								57.3	7.237	744
YEAR	44								MEAN	S. D.	TOTAL OBS.

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EXTREME VALUES

MAXIMUM TEMPERATURE (FROM DAILY OBSERVATIONS)

WILLOW GROVE, PENNSYLVANIA

45-62, 65-77

MONTH	JAN.	5	MAR.	APR.	MAY	J.	JUI.	AUG.	SEP.	OCT.	NOV	DEC.	MONTHS
45		58	9.5			46				19		52	MAX TEMP
		27	30			53				19		21	DAYS
94	99			90	9.8		96		88		7.1	10	MAX TEMP
	29			28	58		58		53		53	30	DAYS
47	89		79				06			40	10		MAX TEMP
	30		30				30			30	58		s
4.8	**					85				16		09	MAX TEMP
	30					50				30		53	DAYS
64	19		16		06		64					62	MAX TEMP
	30		30		30		30					30	2
90	73												MAX TEMP
	30												DAYS
51										86		69	MAX TEMP
										30		30	DAYS
55								66					MAX TENP
								90					2
29			9 2										DAYS TEMP
65	57												MAX TEMP
	30												S
68											10		MAX TEMP
											62		5
2							15						MAX TEMP
MEAN													
S. D.													
TOTAL OBS													

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MINIMUM TEMPERATURE

FROM DA

YEARS

WHOLE DEGREES FAHRENHEIT

WILLOW GROVE, PENNSYLVANIA

14793 STATION

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YEAR	JAN.	.	MAR.	APR.	MAY	N.	JUI.	AUG.	SEP	007.	NOV	DEC.	MONTHS
+ 21				30	36		55	23	46		12		
46		10	52					20		45			
4.4		6		33	62	20		24	33				
9		-	10	32			57	24	43		30		
69		11		31		20		31	43	33	07		
20		•	ex.	22	37	*	57	51	38	53	0.	•	
51	12	•	23	32	38	48	55	*	35		1.		
25	•	1,4	4	31	0	20	25	1,1	45	52			
53	19		15	30	24	4.3	53	25	04		52		
34			19	22	38	64	26	24	*		52	13	
55	8	1	128	30	25	40	37		44	33	13	2	
96	10	13	~	59		46	53	32	04	34	1.1	18	
57		91	50	30	33	4.5	53	48	34	35	52	12	-
58	10		0	27	39	42	20	23	04	31	16	6	0
59	0	9	50	32	39	64	26	99	36	28	1.88	89	9
09	50	18	0	30	39	64	55	25	48	33	25	2	s
19	•		16	53	04	64	22	23	04	33	54	11	;
29	60	1.											
69		9	1.2	22	4.1	94	26	••	04	27		*	
99	'n	•	21	30	33	74	25	*	4	97	23	9	•
67	6	-1	9	30	33	84	35	53	04	28		13	-
99	1-1	•	-	53	38	64	53	48	47	53		6	
69	6	1.5	17	42	37	45	2.	34	42	52	-		6
70	0		1.1	53	33	6		25	42	30	13		
7.1	0	9	22	30	36	52	25	53	63	14	50	13	•
72	•	•	16	23	37	30	23	8	42	27	21		•
73			57	30	37	53	55	53	4.1	37	57		*
74	12	12	23	31	36	52	26	52	38	28	21	52	12
75			1.1	52	42	51	55	51	14	30	28		12
76		•	1.9	27	37		51	4.7	-	92	13		*
MEAN													
S. D.													

MINIMUM TEMPERATURE

(FROM DAILY OBSERVATIONS)

45-62, 65-77

WHOLE DEGREES PAHRENHELT

45 SEP.

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MONTHS

DEC.

NOV 23

34 J.

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24 MAR

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MAY 37

FEB.

MONTH

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5.502 5.986 3.333 3.000 3.168 1.861 3.263 3.390 4.539 4.257 5.187 847 847 840 806 899 870 744 780 713

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16.7

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MEAN S. D.

TOTAL OBS.

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WILLOW GROVE, PENNSYLVANIA

MINIMUM TEMPERATURE

FROM DAILY OBSERVATIONS

WILLOW GROVE, PENNSYLVANIA

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45-62, 65-77

YEARS

MADLE DEGREES FAHRENMETT /BASED ON LESS THAN FULL MONTHS/

30 29 41 29 26 29 30 30 30 30 30 30 30 30 30 30 30 30 30	29 41 29 30 29 30 30 30 30 30 30 30 30 30 3	YEAR VEAR	JAN.	. E	MAR. 24	APR.	MAY	JUN.	JUL.	AUG.	SEP.	. DOCT.		NON	
29 41 26 49 30 30 30 30 30 30 30 30 30 30 30 30 30 3	29 41 28 30 26 30 30 30 30 30 30 30 30 30 30 30 30 30	:		27	30			62				19			
30 30 30 30 30 30 30 30 30 30 30 30 30 3	39	94	100			62	41		56		640			26	26 6
30 30 30 30 30 30 30 30 30 30 30 30 30 3	30 30 30 30 30 30 30 30 30 30 30 30 30 3	4.4			17		2		800		•	30		22	-
17 14 41 58 30 30 30 30 30 30 30 30 30 30 30 30 30	17 14 41 56 30 30 30 30 30 30 30 30 30 30 30 30 30	48			20			**	3			30			
30 30 30 30 30 30 30 30 30 30	30 30 30 30 30 30	64	17		14		41	•	200						1.6
36 30 30 30 30 30 30 30 30 30 30	30 34	90	308		2		3		2						3
26 24 32 30 30 30 30 30 30 30 30 30 30 30 30 30	30 34 30	15										30			305
32 30 30 30 30 30 30 30 30	30 34 30	52											22	23	30 30
34 34 29 29 34 29 30 23 30	30 30 30	53										30			-
34 34 29 30 30 29 30 30	30 30 30	24										30			
30 23 34	30	55								29					
30 23	30	96					408								
900	300	29			10										
	DE NEAN	99	300												
	MEAN	68											~ ~	m 0	
	0.0	S. D.													

NAVWEASERVCOM

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MINIMUM TEMPERATURE

FROM DAILY OBSERVATIONS

YEARS VANDLE DEOREES FAHRENHEIT 45-62, 65-77 MILLOW GROVES PENNSYLVANIA

14793 STATION

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5 PSYCHROMETRIC SUMMA JAN 68

																0	1 334	
																4	HOURS (LS.T.)	6.1.5
Temp.					*	VET BULB	TEMPERA	WET BULB TEMPERATURE DEPRESSION (F)	SSION (F)								TOTAL	
(9)	0 1.2	3.4	5 - 6	7 - 8	9 - 10 1	1 - 12 1	3 - 14 15	10 11 - 12 13 - 14 15 - 16 17 - 18 19 - 20 21	18 19 - 20	21 . 22 23	3 - 24 25 -	26 27 .	28 29 . 30	231	D.B./W.B. D	Dry Bulb	Wet Buib	Dew Point
19 /89		,				7.												
0		4			1	•		-		-	-	-	-		7	0 0	1	
69/69		:		:			:				-	-			0.0	0 0	•	•
5							1:								2	2	1	-
58/ 57	.2 .3	::	.2				-								12	12		2
5 /	•	.2	.2	.1	.3	.1			164						13	15	13	•
6/1	.1 .1	•	.2	.2	1										8		9	8
-	•• 1•		.1	.2	7.		•1								12	12	7	2
1		*	9.		1	.2									22	22	=	•
-	4.	•	•		.2										28	28	10	6
19	.1 .5	•	1.			.2									34	34	26	5
-	•	-	.7		.1										39	04	23	17
-			2.4												68	99	43	16
1	2 1.		1.4												67	67	99	19
38/ 37	2 2	2.		.2											83	83	53	36
	2.	2.	1.5	4.											78	78	100	36
	2.4	2.	2.1	.2											06	06	89	45
	-	2.8	1.3	.2											76	16	74	63
	.2 1.9	2													19	19	78	7
	2.	2	.7	-											73	73	88	70
	64 1.8	-													78	78	78	6
	2.	2	.5												63	68	92	11
	-	7													52	52	73	90
20/ 19	.3 2.5														96	96	69	55
	2	-	.1												64	64	58	5
	2.	1.													42	45	58	9
	1.5	•										-			54	54	**	9
	1.2	.2													11	17	56	40
6	.1 .9	1									-	-			16	16	22	3
7 /8	•	7.													60	00	2	29
-									-			-			0	01	13	*
6/3	** 1.						-								9	•	12	40
1 /2	2,42			2,4	1	×	O.	No. Obs	Obs		1	Meo	No. of	fours with	Mean No. of Hours with Temperature		7	57
					-					20 F	= 32	F 267	36	273 F	≥80 F	≥ 93 ₽	-	Total
Dry Bulb					-												-	
Wes Bulls					-	-											-	
200																		

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NAVWEASERVCOM

WILLOW GROVE, PENNSYLVANIA

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PSYCHROMETRIC SUMMA JAN 68

Tema							WET	BULB	TEMPER	WET BULB TEMPERATURE DEPRESSION (F)	DEPRE	SION	(F)								TOTA		TOTAL	
(9)	0	1.2	3.4	5.6	7.8		11.	12 13	. 14	10 11 - 12 13 - 14 15 - 16 17 - 18 19 - 20 21 - 22 23 - 24 25 - 26 27 - 28 29 - 30	17 . 18	. 61 8	20 21	. 22 2	3 . 24	25 -	26 27	. 28	29 . 3	18: 0		D.B./W.B. Dry Bulb Wet Bulb Dew Point	Wet Builb	Dew Point
0/- 1	.3	.2																				6 6 2	• •	20 23
6 -1 9																						1	-	11
8/- 9													-											9
12/-13													-											- 3
-16/-17																								2 -
																					1239		1239	
Element (X)		Zx2			Z×	+	×	+	Ox.	1	200	Obs.	-		1		1	Mean	40. of	Hours	Mean No. of Hours with Temperature	- 1	-	
Rei. Hum.		264	5642331		81093	+	•	2 16	***	4	7	539	+	30 F		₹ 32 F	-	₹ 67 F	1	≥73 F	280 F	F 293 F		Total
Dry Bulb		98	101		38631	+	31.	2 .	184	75	-	240	+	9	-	399.0	0		0		-	+	+	744.0
Dew Point		7.4	744474		25046	+	- 0	-	800	. 0	-	230	-	25.0	-	704	. 0		+		1	+	+	244

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NAVWEASERVCOM

WILLOW GROVE, PENNSYLVANIA

STATION

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5 PSYCHROMETRIC SUMMA JAN 68

Temo.							WET BU	WET BULB TEMPERATURE DEPRESSION (F)	RATURE	DEPRESS	ON (F)						TOTA		TOTAL	1
•		1 - 2	3.4	9 - 6	7.8	9 - 10	11 - 12	13 - 14	15 . 16 17	17 - 18 19 -	19 . 20 21	. 22	23 - 24 25	5 - 26 27	. 28 29	. 30 ≥ 31	1 D.B./W.B.	.B. Dry Bulb	ib Wet Bulb	lb Dew Point
68/ 67									.2	•1								3	+	
					-			-	-		-	1	+	+	+	+	1	4	•	+
					-	1 .1	.2											9	•	
-							7	1	-			1	1	1	+	-	1		2	+
-		.1	•	~	-	. 3									_			8	80	
-			•	-		•	.1	.2											-	7
-	•	•			•	6	9.										7	17 1	7	+
	.2	•				4.													0	6
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		•															7	29 2		22
-		1	Ľ			1								-			7		25 2	1
			•		-		•										-	39		
-		-	1	-	-	1	-							-			9			27
		•					•										_	39		
	L	1	-	2		1								-		-	-		58 4	2 26
	-	-	: -		-													80		67
1	L	1-	2	0 1.5	1 0									-	-	-	3			
		2	2	7		5											5	93 9	93 6	85 44
1		-	2	-	~												-			
	_	-	-	7													9		88	
		-	3.	-	5											_	_	78 7		
		-	2.		•	7											0			
1		-	3		_												41			
		-	2														-	38		
1				m												_	-		32 4	48 57
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1																		8		
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6/4		•																7	1	
- 1		0 0		1	4	-		1	1		1		1	1	1	1	1		-	-
Element (X)		XX		1	×	+	×	×	+	No. Obs.	-	1	-	-		DOL TO	-	TOTO	1	1
Rel. Hum.						1			+		1	10 F	- 3	32 F	₹ 67 F	273 F	280	41	93 F	Total
Dry Bulb						-			-		1			1			-	-	+	
Wet Bulb														_				_		
	-			Annual Control of the		-		The second second		-		The second second		-	-		-	-	-	

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PSYCHROMETRIC SUMMARY

FEB

WILLOW GROVE, PENNSYLVANIA

Temp. (F)	0 1.2	3.4	3.6	7 . 8		WEI	BULB 12 13	WET BULB TEMPERATURE DEPRESSION (F) 9 - 10 11 - 12 13 - 14 15 - 16 17 - 18 19 - 20 21 - 22 23 - 24 25 - 26 27 - 28 29 - 30	IRE DEPR	ESSION (F)	2 23 . ;	25 - 26	27 - 28	29 . 30	182	TOTAL D.B./W.I	TOTAL TOTAL D.B./W.8. Dry Bulb Wet Bulb Dew Point	TOTAL b Wet Bulb	4 3
0/- 1 2/- 3 4 /- 5 6/- 7																				
10/-11 12/-13 107AL	7.928.429.018.2	29.0	18	2 9.5		4.2 1.7	1	4		7	+ +							1128		
Florest (Y)	2			, A		D-			2	j				West	, od	l lours	Mean No. of Hours with Temperature	e interest		1 1
Ref. Hum.	869	4988071		71827	27	63.7	7 19		-	127	102		£ 32 F	₹ 67 ₽	-	273 F	≥ 80 ₽	1	2 93 F	1
Dry Bulb	143	1436197		380	63	33.	1	. 528		128			314.6					H		1 1
Wet Bulb	112	1124571		33669	69	29.9	1 1	10.267	1	1127		1	417.4							1
Dew Point	7,1	17061		24443	43	21.7	-	2.884	-	127	2	26.8	542.6							

WILLOW GROVE, PENNSYLVANIA

PAGE 1

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D5 PSYCHROMETRIC SUMM JAN 68

WET BULB TEMPERATURE DEPRESSION (F) 0 1.2 3.4 5.6 7.8 9.10 11.12 13.14 15.16 17.18 19.20	3.4 5.6 7.8 9.10	.4 5.6 7.8 9.10	6 7 - 8 9 - 10	8 9 . 10	V/ET BULB TEMPERAT	13 - 14 15 -	IS.	- SE	DEPRESSIC	ON (F) 9 - 20 21	22	23 - 24	25 - 26 2	27 - 28 2	29 - 30	231	TOTAL D.B./W.B.	Dry Bul	TOTAL Wet Bulb	Dew Point
		,•						-												
7.																	~ *			
.1 .2				-	-			1.		-							N 4	w 4		
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2 5 1 3 3	2 5 1 3 3	5 . 1 . 3 . 3 . 4	1 .3 .3	3 .3 .4	*	•														=
4. 6. 2. 5. 5.	2 . 2 . 3 . 2 . 6 . 4 .	. 4. 6. 2. 6. 5	.2 .6 .4 .	2 .6 .4 .	4.	•							_				26	26	19	10
7 5 5	8 5 5 7 6 2	5 5 7 .6 .2	.7 .6 .2	7 .6 .2 .	.2	•									1		52			
.8 .1 .3 1.0 .3	8 .1 .3 1.0 .3 .6	1 .3 1.0 .3 .6	1.0 .3 .6	.0 .3 .6	9.	•											43			24
3 4 7 1.0 7 .3	3 4 7 1.0 7 .3	7 1.0 .7 .3	1.0 .7 .3	.0 .7 .3	.3	•											62			
.1 1.2 1.6 1.2 .9 .6	.2 1.6 1.2 .9 .6	.6 1.2 .9 .6	9. 6. 2.	9. 6.													91	16	45	34
1.1 .9 1.0 1.3 1.	1 .9 1.0 1.3 1.2	9 1.0 1.3 1.2	.0 1.3 1.2	3 1.2										1			88			
.6 1.1 1.6 1.3 1.5 .7	1 1.6 1.3 1.5 .7	7. 6.1.3 1.5	.3 1.5 .7	.5 .7														06	72	14
1.5 1.3 1.5 1.3 1.1	.5 1.3 1.5 1.3 1.1	.3 1.5 1.3 1.1	.5 1.3 1.1	.3 1.1													114		7	62
.7 1.4 1.9 1.7 1.	.4 1.9 1.7 1.9 .	.9 1.7 1.9	.7 1.9	6.	9												100	100	82	53
1.6 1.1 2.3 1.4 .	.6 1.1 2.3 1.4 .	.1 2.3 1.4 .	.3 1.4	. 4.	2		_										114	7		
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4 1 7 1 6	4 1 7 1 6	9 9 1 1	9	9			-										69			
9 0	9 - 0	9	4				-										62			
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Σχ² Σχ σχ	ZX X	×	×	×	-	d'x	1		No. Obs.					Mean No.	to. of Hours	ours wi	with Temperature	ature		
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							- 1	-				-			-			+	+	
															-			-	1	

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WILLUM GROVE, PENNSYLVANIA

5 PSYCHROMETRIC SUMMA JAN 68

			7 .2 .1													Mean No. of Hours with Temperature	±32 F ≥67 F ≥73 F ≥80 F ≥93 F	16.2 4.2 .6	9.
			1240													Mean No. of Hours with Temperature	532 F 267 F 273 F 280 F	16.2 4.2	
			.2 .1													Mean No. of Hours with Temperatu	≤32 F ≥67 F ≥73 F	16.2 4.2	
			.2 .1													Mean No. of Hours with	≤32 F ≥67 F	16.2	
			.2													Mean No. of Ho	≤32 F ≥67 F	16.2	
			.2													Mean N	± 32 F		
			.2															103.8	216.0
			.2															10	2.
			.2																
			.2													-	20 F		
							1										04	0	0
			-	-												No. Obs.	1240	1240	1240
			.7					-								-	92	90	23
			2.4													d _x	22.476	9.990	9.053
			4.6													×	64.2		38.0
			9.6														-	-	-
			14.3													Σ×	7966	53233	4708
			18.4																
			19.6														3440	8989	9766
			18.1													Σ_{X^2}	574	240	188
			11.9																
- 2	6 /	1-1	AL													ment (X)	I. Hum.	y Bulb	Wet Bulb
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YEARS

WILLOW GROVE, PENNSYLVANIA

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05 PSYCHROMETRIC SUMMA JAN 68

Temp.	1	1	1	1	1	1	WEI BUI	BIEMPE	KAIUKE	WEI BULB IEMPERATURE DEPRESSION (*)		1	1	1	1	1		TOTAL		IV I	1
(F)	0	1.2	3.4	9.5	7.8	9 - 10	11 . 12	13 - 14	15 . 16	. 12 13 - 14 15 - 16 17 - 18 19	2	21 - 22 2	23 - 24 2	25 - 26 2	27 - 28 29	8	231		Dry Bulb	Wet Bulb	Dew Point
16 /26													.1					2	7		
		1		1						1	1	-	1	1	1	1	1	-	1		
88/ 87											-	2.						*	4		
_										-	7	-	1				1	3	3		
_								-			.2		-					20	2		
_							-	-	.2	.2		.2				1		10	10		
_					1.		.2		4.	2.								10	10		
_							. 1	.2	.1	.2	.1								7		
-				1.		.3	.2	.2		1.	•							16	16		
					.2	4	.2	. 2	5	-								20	20		
-				.1	1.	. 7	2	.3	-	-	.2	-						26	26	2	
-						1	. 2		. 2	-		-						21	21	7	
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-	3.	00	0	0		1.3	1.1	0.	1.									75	75	43	*
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-			00	6.		1.3	9.											08	80	57	38
_		1.6	1.2		1.7		.7											88	88	62	*
			•			6.												101	101	92	55
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_	63					.2	.2	1.										73	73	95	3
-		1.0	1.1	1.2	1.2													69	69	110	48
-		6.	1.0															42	42	40	2
		9		1.2														43	43	85	2
36 / 35		4.		1.0	4.	-												34	34	99	73
6 /		.2																23	23	39	9
6 /	.1		. 5	.2	.1													23	23	36	8
2 /0				2														80		45	63
/8		.2	-:	.2														80	2	19	55
5/ 5		-																4		12	63
Element (X)		ZX2			Σ×	_	×	ax o		No. OF					Mean No.	4	Hours with	Temperature	ure		
Rel. Hum.												2 0 F	×1	32 F	2 67 F	≥73	3 F	≥ 80 F	≥ 93 F		Total
Dry Bulb																					
Wet Bulb																					
Street, or other Persons in concession, where the party of the last of the las	-								2				-	-						-	

555 PSYCHROMETRIC SUMMA JAN 68 PSYCHROMETRIC SUMMARY

YEARS

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WILLOW GROVE, PENNSYLVANIA

5 PSYCHROMETRIC SUMMA JAN 68

N.	Wet Bulb Dew Point							7 2			53 23		20 25									1					7							1081111800180440001		10 8 L L L 8 0 9 L 8 9 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10101	108
TOTAL	Dry Bulb Wet B	*	12	1=	25	34	33	55		69												-			-								B 1					
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TOTAL			-		17																														Tight Tight	with Tem	Tight I	F H Tes
	30 ≥ 31	_	-		13						*			-																					Hours Heart	1	f Hours	273 F
	28 29 .		-						1																											Ż		
	. 26 27 .	-	-				7																												*			
1	- 24 25		+						_																												32	33
	. 22 23	7.	-					-				. 1																									P 0 1	
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TURE DE	1 91 - 1	.2			.2	9	• 1		.2	3	7	.2		.2	22	22.	227-	22	22.	22	2277	2211	22	227-	227-	222	222	22	22	222	222	222	2223	22				
TEMPER/	3 - 14 15		2		4	1.	9.	0	.7	1.0	. 2	9		0	0 0	0 m -	077	0.01.4	0.0.7.4.7	001741	0.61.41	0.01.01.1	0.01.74.1	0.01.014.1	0.01.44.	0 6 - 7 4 -	0 6 - 7 4 -	0 2 3 3 3	08-104-	08-124-	08-124-	0.61-104-1	06-174-1	06-104-	0.61-104-1	06-104-1	06-104-	06-15-4-1
WET BULB TEMPERATURE DEPRESSION (F)	10 11 - 12 13				200	.5	.2		00	5	8	1.4		3.	3.3	3.4.0	3400	34004	340040	440040	4400400	4400400-	4400400-	******	*****	3400400-	******	******	3300300	*****	*****	******	******	******		*******		
*	9 - 10 1					4	9	00	9.		1.0	. 7			00		00004	00044	000446	0004460	00044600	000446000	000446000	0000446000	00004460001	0000446000	0000446000	0000446000	0000446000	000044600011	000844608277	00004460000	000044600011	00004460000	00004460000	000044600001	00004460000	000044600001
	7 - 8				.2	9	9	00	1.0		•	1		30	30		2040																		304.001.0000		304400 V V V O V V V	*X X X X X X X X X X X X X X X X X X X
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Ten	()	88	199		30	18/	191	147	72/	101	189	199	-	149	54/	470	4008	32000	420803	266	200000000000000000000000000000000000000	805468055	200000000000000000000000000000000000000	12089770899	120000000000000000000000000000000000000	200000000000000000000000000000000000000	200 200 200 200 200 200 200 200 200 200	200000000000000000000000000000000000000		200000000000000000000000000000000000000	200000000000000000000000000000000000000	2005/6005/6005/6005/6005/6005/6005/6005/	2007/4/20007/4/20007/4/20007/4/20007/4/20007/4/20007/4/20007/4/20007/4/20007/4/20007/4/20007/4/20007/4/20007/4/20007/4/2000000/4/20000000000	7 6 8 6 7 7 6 8 6 7 7 6 8 6 7 7 6 8 6 7 7 8 8 6 7 7 8 8 8 8	5746 30 5746 30	664/ 662/ 660/ 660/ 660/ 660/ 660/ 660/ 660	Ref. Hum	

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YEARS

	Dry Bulb Wet Bulb Dew Point	3	1240			Total	744.0	744.0	744
TOTAL	Wet Bulb			1540		L			
	ory Bulb		1240			2 89 F			
TOTAL	D.B./W.B.			1540	Mean No. of Hours with Temperature	2 80 F	25.8		
	231				Hours with	273 F	106.8	4.2	1.0
	. 28 29 .				Z C	≥ 67 F		84.8	9110
	25 . 26 27		7			₹ 32 ₽		9.	
	0 11 - 12 13 - 14 15 - 16 17 - 18 19 - 20 21 - 22 23 - 24 25 - 26 27 - 28 29 - 30		.3			20 F			
SION (F)	19 - 20 21		6.				1240	1240	240
JRE DEPRES	16 17 - 18		3.0 1.5		2 2 2 2	12			
WET BULB TEMPERATURE DEPRESSION (F)	13 - 14 15 -		6.43		×	20.057	0.005	8.370	10.548
WET BUL	0 11 - 12		9.9 8.5 6.4		l×	68.4 2			
	1 - 6 8 - 1					-	76019		-
	5.6 7		16.51		x x				9
	.2 3.4		6-917-618-114-512-4		-	6293445	4784363	3826051	169552
	0		6.917		Z X Z	9	4	3	3
Temp.	(e)	20/ 19	14/ 13 TOTAL		Element (X)	Rei. Hum.	Dry Bulb	Wet Bulb	Dew Point

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WILLOW GROVE, PENNSYLVANIA

MILLOW GROVE, PENNSYLVANIA

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	Dew Point								3	3	31	43	132	160	114	116	88	106	8	72	78	57	:	30	1:	1	~ 0	1200			Total	720.0	20.0	720.0
TOTAL	Wet Bulb Dew Point						2	3	16	43	87	160	147	2	113	122	104	89	75	51	59	22	-	-	٦.	1			1200		-	-	-	
	Dry Bulb V	m æ	91	23	40	**	99	88	63	102	107	120	80	16	06	99	83	38	22	16	13	2	2	1		1		1200			2 89 E			
TOTAL	D.B./W.B. D	m 00	16	23	04	94	89	80	63	102	101	120	08	76	06	99	83	38	22	16	13	2	2						1200	h Temperature	≥ 80 F	101.4	1	
	231																									-				of Hours with	273 F	291.0	38.4	13.2
	. 28 29 . 30																							-		+				Mean No of			274.8	197.2
	. 26 27															-										+				-	₹ 32 F		2	
	23 - 24 25																									1					1	+		-
6	0 21 - 22 23							2	-																	-		•			102			
SSION (F)	8 19 . 2	25	3	3	2	1	2	•	2			-														1		•			1000	1200	1200	1200
RE DEPRE	6 17 - 1	. •				3			Ŀ		2	. 2	-	7												-		2.5		2	-	1	-	1
WET BULB TEMPERATURE DEPRESSION	0 11 - 12 13 - 14 15 - 16 17 - 18 19 - 20	-	1	7	•	30	•			•																1		7 4.4	1	-	149	375	6.398	100
BULB TE	12 13 .	•	2		1	6				c	60	. 7	3	.2	1.		.1			- Acres and	_			-		1		9.		+	1,7		-	+
WET	-	-		2	~		7	1	1	-	.7				9.		.1	.2								+		8		-	70.4	70.3	6.3	50.2
	7.8 9.			1.	.3	.2 1	-	-	-	1.2.1		6	00	00	.5	1.	00	.2	.1		.1					+		3.217.217.816.212.910		-	× 2.	84322	6230	1151
	5.6						9.	1	-	2.3		9		1.2	1.5		1.0		3	.2	.2	.1	7			1		16.21			a			
	3.4								1	*	2		1-	-	-	-	-	-			l.							17.8			4222366	9286	11604	4288138
	1.2		-						. 3		7	7 2.2		4 1.2	2.			2 1.1		•			•					217.2			X. 7	909	480	428
	•											_										_								1	1	1	-	-
	d C	9	9		83	2	100	1	74	73	2	9	6	65	63	6	50	5	55	53	5	49		4	43	3	32	35		1	Element (X)	Dry Bulb	West Bulb	Dew Point

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	D.B./W.B. Dry Bulb Wet Bulb Dew Point			, ao	-	28 28		65 65	88	116	111 111 12	011	135 136 152	123	76	16	36 1	31	20	35	0	21					1240	1240 1240	Temperature	2 53 F	107 4 4.8
	231																												Mean No. of Hours with Temperature		627.8 450.0
	. 10 11 - 12 13 - 14 15 - 16 17 - 18 19 - 20 21 - 22 23 - 24 25 - 26 27 - 28 29 - 30		1	-			-																				6.			10F 132F	
WET BULB TEMPERATURE DEPRESSION (F)	6 17 - 18 19 - 20	•					L.			9			1. 2.	1													6.5 3.3 1.9		No. Obs.	1240	1340
LB TEMPERATUR	13 . 14 15 . 1				3		1.2	0	1.51	1:1	9.	0		7.	:												7.8		ax	16.563	7.338
WET BUI	. 10 11 . 12					4.	3 9	-	~	7	1.8 1.3	1	•	200			•	7.								-	1.5 9.8		K	67.5	-
	5.6 7.8 9.						1.		.2	5 1.5	•	601 60	0	9 0		-	10	.5 .2	•	.2							9.819.514.314.51		NX X	83656	
	1.2 3.4									•	•	7 7	1.0	9		6	ō		5		•						9.819.5		2x2	5983716	
	0		1									1			•			.2									0				
Temp	(6)	16 /86	1	56 / 60	1	201	8			80/ 79	78/ 77	76/ 75	74/ 73	-	10/ 04	0	64/63	1	66 /09		~	w 1	-	100	3	28/ 43	TOTAL		Element (X)	Rei. Hum.	

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WILLOW GROVE, PENNSYLVANIA

WILLOW GROVE, PENNSYLVANIA

DS PSYCHROMETRIC SUMMA JAN 68

Temp.	-	1	+	- 1	1	₹	ULB TEM	WET BULB TEMPERATURE DEPRESSION	E DEPRES	9						TOTAL		TOTAL	
(F)	0 1.	2 3.4	4 5.	6 7.8	8 9.1	10 11 . 1	2 13 . 1	4 15 . 16	- 12 13 - 14 15 - 16 17 - 18 19 - 20		21 . 22 2	23 . 24 25	15 . 26 27	7 - 28 29 - 30	. 30 231	-	B. Dry Bulb	Married Co.	Wet Bulb Dew Point
56 /96														-	-	-		-	
94/ 93										•		-		-			- 6	• 6	
-	-						1	1	L						-	-			
90/ 89									•						_	•			
8	-	-	-	-	-		1	1			1	1	1	+	+	1			
26 / 84						***										~	28 28	_	
1.	1	1	+	1		1	1		1			1	1	1	+	3	1		
64/ 63				•	7	.9 1.5			9.				-			•		_	
1	1	1	1	3	7	4	9	9.								**			
80/ 19			-	0	8 1.	7 .8	•	4.	•					_		7			
1		2	7 1.	4 1.	9 1.0		•		. 2							03	3 63		
-	•	7	0	2 1	7 1	7	•	6 . 3	•				-			12	-		
-	7	3	5	3	5	.2 .8	•									48.	***		000
-			100	O				3						-	-	144		1	
-		7	-			*		-	•										000
-	.1.2		-	3			2				1	1	1	1	+	1			1
-				O.		•	,							-		2,		167	
	2	-				1	•				1	+	+	+	+	0	1	1	70
42/ 61				-							•					74	7.	-	
	1-			-		9	-	1			-	1	1	+	1	5			
		•	•	•	•		a Mariana								_	63	67 6	6	98
1-	1	1		•	-	1	1					1	1	1	+	1			
	•	•	•	•	1											11	1		
1-	1	1	,	1	1	1	-			1	1	1	+	+	+		1		
	_		-														3	-	38
	+	1	1	1	1	1	-				1	-	1	1	-	-		7	24
•																		2	10
1	-	1	1	-	-	1									-				10
64/43	7.																1 1	1	
6 /			-	-	-	-						-	1	+	-	-			7 .
6/																			٠-
OTAL	1.516.	921.	917.	010	.6 9	7 9.1	8 6.9	3.6	1.08	.2						1240	1240	1240	1239
Element (X)	ZX2			Σx		×	O'X		No. Obs.	1				Mean No.	of Hours	with Temperature	oture		
Ref. Hum.	189	1445	40	897	-	72.5	15.7	. 765	1239	68	20F	232	2.5	₹ 19 =	273 F	280	2 89 F	L	Total
Dry Bulb	67		1	16606	-	73.4	7.5	. 566	1240	0				618.6	403.8	8 157.8		2.4	744.0
Wet Bulb	55	557317	9,	82850	-	66.8	5.3	906.	1240	0,				424.8	-	1			746.0
Dew Point	V 8		-							-		-	1		Į				

10000 KINI 0 0 0 0 0 0 0 0 0

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555 PSYCHROMETRIC SUMMA JAN 68

	Wet Bulb Dew Point								-		7	22	28	47	73	112	95	112	125	6	93	75	65	57	82	30	22	24	*	10	7	41	1200		Total	720.0	720.0	730
IOIAL	et Bulb		1		1		-		~	17	15	28	09	95	130	109	105	135	121	66	16	69	43	4	21	12	0	*	~	~	1		1200					
- 1	Dry Bulb W	* (•	0	9	12	18	33	38	*0	16	26	95	66	95	46	95	102	65	69	49	33	27	0	2	~	*	~	+		+		1200		≥ 93 F			
	D.B./W.B. Dry	*	3	00	•	12	18	33	38	40	76	85	66	66	86	46	95	102	65	69	64	33	27	6	2	7	*	-	1		+		1200	with Temperature	≥ 80 F	40.8	9	
7	≥31 D.	_	+		+		+	_		_		-	-		-									-				-	1		+			irs with	3 F	157.2	8.8	
- 1			+		+	_	+				_						-					-	-	-	-	-	1		1		+			of Hours	≥73			1_
	- 12 13 - 14 15 - 16 17 - 18 19 - 20 21 - 22 23 - 24 25 - 26 27 - 28 29 - 30		+		+		1					_																	-		+			Meon No.	₹ 67 F	328.8	132.6	
	5 - 26 27		1	-	1		1	-																							+				32 F			
	3 - 24 2		+	_	1																-										1				VI			
	- 22 2		+	. 2	-		1	_											-												1		.2		20 F			
(F)	. 20 21		+	• 5	-	_	-																								1		.2		0	0	0	-
EPRESSIC	7 . 18 15		1		1		.2	.2		• 1	.2																				1		6.	No. Obs.	1200	1200	1200	
WET BULB TEMPERATURE DEPRESSION (F)	5 . 16 17	-	+	• 2	1			4.	.1	• 2			•	.2																	1		1.9	-	0	6.	9	
TEMPER	3 - 14 1	7.	-	7.	1		.2	9.	6	.3	.3	6.	4	4.	1.	3.	2.														1		4.	Ox	7.010	8.879	7.316	
ET BULB	1 - 12 1		.2			4.	4.	.5	1.0	.7	9.	.7	. 7	S.	.7	6.	2.	-:	-	.2											1		7.3	×	73.4	65.5	89.8	1
*	9 - 10 11	• 1	1	7			.2				1.2		8		.7			.2		.2		.2	-										1.6	-	+-	-	-	t
	7 - 8 5		1			2	.2	.2	9.			1.2		0	1.0		•	30	3.		7	-			_						1		1.2	ZX	88049	8587	1771	
	5.6		1				6.	.2		1.	1.2	1.7	1.4	1.8	1.0	1.2		0.		0				.2	7	-		٦.					4.51					1
	3.4		1						-	2		1.4	2.9	2.2	2.4	1.7	1.6	2.2	1.4	*	1.4	1.2	1.1	2.			7				1		3.31	1	1475	131	743	
	1.2		1							.2		-		5	F.	0	30	3.5	7	00				-			2.						222.02	2×2	6807475	5241	435	
	0		1									.2	.2					1.0	*	4.	1	.2	-										4.2	1				-
ď	1	16	80		85	83	81	19	11	75	73	71	69	67	69	0	0	5	2	2	•	2	3	*	4	43		~	~	38	33		-	Element (X)	Rel. Hum.	Dry Bulb	Wet Bulb	-
Tem	(9)	92/	206	98	86/	84/	82/	108	78/	76/	76/	72/	10/	68/	199	149	62/	100	58/	26/	54/	52/	50/	48/	194	1	42/	104	38/	36/	34	32/	-	Eleme	Rel.	Dry	Wes	

12668 - 7605 HW

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WILLOW GROVE, PENNSYLVANIA

YEARS

5 PSYCHROMETRIC SUMMA JAN 68

Temp.							WET BUL	3 TEMPE	SATURE I	WET BULB TEMPERATURE DEPRESSION (F)	(F)					- 1		TOTAL		TOTAL	
(F)	0	1.2	3.4	5.6	7 - 8	9 - 10	11 - 12	13 - 14	15 . 16	. 12 13 . 14 15 . 16 17 . 18 19 . 20 21	. 20 21	. 22 23	- 24 25	- 26 27	- 28 29	. 30 = 31		D.B./W.B. Dry Bulb	_	Wet Bulb Dew Point	Dew Poi
84/ 83								-		7.								- ~	72		
-		1						•	-	•			-		-			-	-		
									4	-								100	2		
76/ 75						-		~	-									4	*		
-				-	.2	.2	.5	1			-	-	1	+	+	+	+	15	15	-	
72/ 71	1.	-	2.	*	.2	.5	.2	.5	.2	• 1								58	58	7	2
					4.	.2	.3	4.	.2	.2			-	-	+	+	+	34	34	1	7
-	•	.3	. 8	.3	4.		6.	s.										41	47	0	-
66/ 65		•		9	1.	9.	9.		. 1						-	-	1	44	44	33	7
-	•		1.0	9.	4.	.5	9.	.1	.2				-					200	28	38	30
					80	6	4.	n	.2									78	78	48	2
-		1.6	1.3			1.0	5	.3										63	63	26	37
			0		1.2	80		2								-	-	105	105	73	~
-	•					.7	9.									_		106	106	36	~
-	•		1.5		1.0	9.	.2	7.									-	82	82	63	0
-	.2				1.1	9.	.2								_		_	68	8	100	58
-		2.2			•	. 7	1.										-	83	83	95	7
-					4.	.5	•										_	83	83	100	-
-	•		1.9		.2	9.												74	74	110	•
-	3				0.	.2									_		_	67	67	103	96
-	•	•		1.1	9.	.2										-	1	47	47	65	•
-			4.	*	0.													27	27	28	16
-					.2												-	10	19	48	-
-		-		*	7										_			12	12	30	62
-	-	:	5													-	-	13	15	54	~
-			5	1.														6	0	21	33
-				-											1	1	1	2	2	13	~
28/ 27		.1	.2															4	*	12	53
-		.2										-	-	1	+	1	1	~	2	2	7
7															_					~	16
12												-		-	1	+	+	1	1		1
20/ 19																					10
1 /8						-			1	-	+	1	-	1	-		1	1	1		1
Element (X)		2x2			×x	1	×	×	+	No. Obs.	+		-	1		٦	*	Temperature	1	-	
Rel. Hum.									-		-	10 F	= 32	2 F	₹ 67 F	273	_	2 80 F	293 F	1	Total
Dry Bulb											-			1			+			-	
Wet Bulb																	-			-	
	-					-							-								

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14793 STATION

WILLOW GROVE, PENNSYLVANIA

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YEARS

D NOW

PAGE 2 TOTAL

TOTAL
D.B./W.B. Dry Bulb Wet Bulb Dew Point

12

1240

1240

1240

124

	SOMMA	
0	TT	

		- Carrier
T	 T	
-)	1	

E

766.0

Total

2 93 F

2 80 F

≥73 F

₹ 67 F

≥ 32 F

20F

1240

No. Obs.

1240 1240

1240

54.1 9.725 48.9 8.964

86308 67141

Element (X)

NAVWEASERVCOM

Dry Bulb Wet Bulb Dew Point

Ref. Hum.

54.1

3752611 6433874

2495254

43.4 11.313

53828

16.8 .0 9.

85.8 9.0

33.0 121.2

Mean No. of Hours with Temperature

766.0

5 PSYCHROMETRIC

231

1.2 3.4 5.6 7.8 9.10 11.12 13.14 15.16 17.18 19.20 21.22 23.24 25.26 27.28 29.30

0

Temp.

0

14/ 13

16/

TOTAL

0

0

0

0

0

0

0

0

0

:

2.7

4.024.221.019.111.6 9.4 6.2

WET BULB TEMPERATURE DEPRESSION (F)

WILLOW GROVE, PENNSYLVANIA

18658. TOOS MIN







































0.0

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The part of the	1			STATION NAME	344							YEARS				HOM	
77															۵	PAGE 1	.5.7.3
77						WET BULB	TEMPERA	TURE DEPRE	SION (F)					TOTAL		TOTAL	
77 77 77 77 77 77 77 77 77 77 77 77 77		.2 3	4 5.	7.		11 - 12 1:	1 - 14 15	. 16 17 . 18	19 - 20 21	. 22 23 .	24 25 - 26		30 ≥31	D.B./W.B.	Dry Bulb V	Wet Bulb Dew Point	Dew Poir
75	1				,		.1							7	-		
65	2	-	-		-	-	.2			1	-		-	9	9		
69	6					.2								1	7		
69					.2	-2	-						-	7	1	1	
65	6								_					11	11		
65 2 6 1 2 3 3 3	-			•			2							24	24		
\$59 \$7 \$2 \$2 \$3 \$	-		9	-										21	21	11	-
59 .1 .2 .2 .2 .2 .2 .2 .1 .1 .1 .2 .2 .3 .5 .3 .5 .3 .5 .3 .5 .3 .5 .3 .5 .3 .5 .3 .5 .3 .5 .3 .5 .3 .5 .3 .5 .3 .5 .3 .5 .3 .1 .2 .3 .1 .2 .3 .1 .2 .3 .1 .2 .3 .1 .2 .3 .1 .2 .3 .1 .2 .3 .1 .2 .3 .1 .2 .3 .1 .2 .3 .1 .2 .3 .1 .2 .3 .1 .2 .3 .1 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3	•		(4)		•	1.5								15	15	15	10
59 11 2 3 5 3 5 3 5 3 5 5 4 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		5	4	2			.1							27	27	33	15
55 2 1. 2 6 5 8 5 1	•	. 5		10			2							0,	04	22	16
53 1 2 3 5 6 8 3 3 2 4 4 4 1 2 2 5 5 6 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	Ľ	•	-	4		u								56	56	36	28
53 . 1 2.3 . 5 . 7 . 7 . 7 . 3 . 1 47 . 1 2.5 . 8 1.0 . 6 . 4 . 4 . 4 . 4 . 4 . 4 . 4 . 4 . 4	_		2				:							62	62	64	37
49 .2 .9 .8 1.0 1.2 .7 .2 .4 .4 .4 .4 .4 .4 .4 .1 .3 1.0 1.2 .7 .2 .8 .1 .3 .4 .4 .1 .3 1.0 1.2 .7 .6 .1 .3 .4 .4 .3 .4 .4 .3 .4 .4 .3 .4 .4 .3 .4 .4 .3 .4 .4 .3 .4 .4 .3 .4 .4 .3 .4 .4 .3 .4 .4 .4 .3 .2 .7 .1 .2 .2 .2 .7 .1 .2 .2 .2 .7 .1 .3 .2 .2 .3 .3 .3 .5 .7 .2 .2 .7 .1 .5 .9 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3				1										65	65	67	
49 .2 .9 .8 1.0 1.2 .7 .2 49 .1 .3 1.6 1.5 1.7 .6 .1 41 .2 .7 1.7 2.4 1.3 .4 39 .2 .6 3.1 2.1 .2 39 .5 .7 2.2 .6 1.0 39 .2 .6 3.1 2.1 .2 31 .3 1.9 2.0 .7 .1 20 .2 .7 .1 21 .3 1.9 2.0 .6 .1 22 .2 .7 .1 23 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3			~	_		14						_		75	75	23	45
45 11 12 11 12 18 11 11 11 11 11 11 11 11 11 11 11 11			8	-										09	09	20	64
45 .1 .3 1.6 1.5 1.7 .6 .1 .3 .4 .3 .4 .3 .4 .3 .4 .3 .4 .3 .4 .3 .4 .3 .4 .3 .4 .3 .4 .3 .4 .3 .4 .4 1.9 2.8 1.0 .3 .3 .2 .2 .7 .2 .7 .1 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3		0	-	-		-								63	63	23	20
43 . 1 . 2 1. 2 2. 2 5. 5 . 3 . 4 . 9 . 6 . 1 . 9 . 4 . 9 . 6 . 1 . 9 . 4 . 9 . 6 . 1 . 9 . 4 . 9 . 2 . 0 . 2 . 7 . 1 . 2 . 9 . 9 . 9 . 9 . 2 . 7 . 1 . 2 . 5 . 9 . 2 . 2 . 7 . 1 . 2 . 5 . 9 . 2 . 2 . 7 . 1 . 5 . 9 . 2 . 2 . 7 . 1 . 5 . 9 . 2 . 2 . 7 . 2 . 7 . 2 . 7 . 1 . 5 . 9 . 2 . 7 . 2 . 7 . 2 . 7 . 7 . 7 . 7 . 7		3	9	5 1.										71	7.1	65	29
412 .7 1.7 2.4 1.3 .4		7	2 2	2 2.										78	78	24	36
39 .8 .6 2.0 2.7 .6 .1		7 1	7 2	4 1.										82	82	40	39
37 .4 .4 1.9 2.6 1.0 39 .5 .7 2.2 .7 .1 29 .2 .7 .1 29 .2 .7 .1 29 .2 .7 .1 29 .2 .7 .1 29 .2 .7 .1 29 .2 .7 .1 29 .2 .7 .1 29 .2 .7 .1 20 .2 .7 .2 21 .2 .2 .2 .2 21 .2 .2 .2 .2 22 .3 .3 .3 .3 .3 21 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3	6	~	0	7			-			-				84	84	82	48
33 .5 .7 2.2 .7 .1 31 .3 1.9 2.0 .6 27 .1 .3 1.2 .5 29 .2 .7 .1 29 .2 .7 .1 21 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3		7	.9 2	8 1.	_									19	40	95	55
33 .5 .7 2.2 .7 .1 29 1.9 2.0 .6 21 1.3 1.2 .5 22 .2 .7 .1 23 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3		~	.12	1			-							74	74	110	52
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27 1 2 .5 28 2 .7 29 .2 29 .2 29 .2 19 .2 .7 19 .2 .7 19 .2 .2 11 .1 13 .1 14 .1 15 .1 16 .2 17 .2 18 .1 19 .1 19 .1 19 .1 19 .1 10 .1 10 .1 11 .1 11 .1 12 .1 13 .1 14 .1 15 .1 16 .1 17 .2 18 .1 19 .1 19 .1 10 .1 11 .1 11 .1 12 .1 13 .1 14 .1 15 .1 16 .1 17 .1 18 .1 18 .1 19 .1 19 .1 10 .1		7	0	0		1	+		-	1	1	-	-	58	28	96	74
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23 . 2 . 7 21 . 2 . 2 15 . 1 17 . 2 . 1 18 . 1 . 1 19 . 1 . 2 × 2 × σ× No. Obs. 20 F ≤ 32 Bulb Bulb	•		6	2		-	-			1	-			20	20	**	96
23 .3 .3 .1 .2 .2 .2 .1 .1 .2 .2 .1 .1 .1 .2 .2 .2 .2 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1	2													10	01	35	106
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11	6	90	+	+		+	+	+	+	1	1	+	+	2	2	•	36
13 • 1 11 Σχ Σχ Χ σχ Νο. Obs. 132 Hum. 18ulb 201 132														2.	7.	m (31
2/ 11	0		+	+	1	+	+	-	+	+	1	+	1	1	1	•	3
Innent (X) XX² XX No. Obs. Fel. Hum. SX 8ulb \$0 F \$32 Met Bulb Wet Bulb \$20 F \$32														-	•		2 *
20F ±32		2x2		Σx	-	×	σ×		bs.			Mean No. o	of Hours w	with Temperature	ure		
Dry Bulb Wet Bulb										≥ 0 F		≥ 67 F	≥73 F	≥ 80 F	293 F	-	Total
Wet Bulb																	
Dew Point																	

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MILLOW GROVE. PENNSYLVANIA	STATION MANE

	v Point	0 00	1200
	5 Dev		-
TOTAL	Wet Bull		
	Dry Bulb		1200
TOTAL	9. 10 11 . 12 13 . 14 15 . 16 17 . 18 19 . 20 21 . 22 23 . 24 25 . 26 27 . 28 29 . 30 231 D.B./W.B. Dry Bulb Wet Bulb Dew Point		
	≥31		
	30		
	29 .		
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	- 26		
	1 25		
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(F)	20		
SION	19.		
RES	. 18		
E DEF	3 17		_
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WET BULB TEMPERATURE DEPRESSION (F)	3.1		7.7 3.5 1.1
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WET	=		
	10		-
			-
	. 8		1
	-		- 5
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	0		1
-		0 -	•
1	-	-	-

	Wet Bulb Dew Point	• 00	1200			Total	720.0	720-0
TOTAL	Wet Bulb				-	+	+	+
	Dry Bulb		1200		- 1	2 93 F	1	1
TOTAL	D.B./W.B.				h Tempera	2 80 F		
	z 31				Hours wi	273 F	4 .0	
	. 28 29 . 30				0.0		33.6	+
	. 26 27 .				-	-		171.0
	9 - 10 11 - 12 13 - 14 15 - 16 17 - 18 19 - 20 21 - 22 23 - 24 25 - 26 27				1	+	8	17
	21 - 22					\$ 0 F		
WET BULB TEMPERATURE DEPRESSION (F)	18 19 - 20		2		No. Obs.	1200	1200	1200
URE DEPR	. 16 17 .		. 2		ž			
TEMPERAT	3 - 14 15		1.1		σ×	7.918	1.224	10.586
WET BULB	11 . 12 13		3.5		×	9999	7	41.01
	-		7.7		+	+	+	+
	6 7.8		414		x _x	79872	249	49203
	3.4 5.6		. 221			28	125	125
	1.2 3		.720.726.221.414.1		Σx²	57012	26992	2151825
	0		4.72					
Temp	E	10/ 9	6/ S		Element (X)	Rel. Hum.	Dry Bulb	Wet Bulb

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	ew Poin			4	*	9	1	10	14	21	20	21	36	23	36	42	63	62	69	83	7	97	*	76	2	63	62	42	4	28	28	90	200		Total		
TOTAL	Wet Bulb Dew Point			•	ın	1	14	15	20	20	26	34	43	29	78	109	116	118	106	96	*	63	35	45	*	38	16	15	11	9	-	1			7		1
1	Dry Bufb W		7	-	9	16	17	15	20	38	90	89	44	92	119	66	901	83	80	9	25	41	38	45	58	13	14	13	-	-	7	1			≥ 93 F		
TOTAL	D.B./W.B. D		7	2	07	16	17	15	20	38	20	68	97	92	119	66	106	83	80	00	52	14	38	4.5	62	13	7.	13	7	-	-			with Temperature	≥ 80 F		
	≥31																																	ours wi	≥73 F		
- 1	. 30			1														1		1		1				1						1		of Hours	AI		1
-	28 29		_	1		-						-				-		1		-		1		-		1		-		-		1		Mean No.	4		
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du.	•	04	0	5	5 /	2	5	-		3	*	*	4	-			6	-	7	7	2	2 /	7	-	-	1	1	1	-					Element (X)	Ref. Hum	Dry Bulb	Wet Bulb
Į.	-	99	2	109	58/	9	1	52	ò	64	195	3	42/	40	8	36/	*	12	30/	8	26/		2	0	18	9	*	2	10	8	0	4	n	a š	Re.	Dry	Vet

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WILLDW GROVE, PENNSYLVAME

WILLOW GROVE, PENNSYLVANIA

5 PSYCHROMETRIC SUMMA JAN 68

	Dry Bulb Wet Bulb Dew Point	22	1240									Total	244	7.4
TOTAL	Wet Bulb			1240								+	+	+
	Dry Bulb		1240									≥ 93 F		
	D.B./W.B.			1240							Mean No. of Hours with Temperature	2 80 F		
- 1	0 = 31										Hours wit	≥73 F		
	. 28 29 . 3										lean No. of	≥ 67 F	+	1
	25 - 26 27												7.097	2000
	2 23 - 24											1	7	2 , 8
(F)	20 21 - 2											10 N	+	+
PEPRESSION	7 - 18 19 .										No. Obs.	1240	1240	1240
WET BULB TEMPERATURE DEPRESSION (F)	9 . 10 11 . 12 13 . 14 15 . 16 17 . 18 19 . 20 21 . 22 23 . 24 25 . 26 27 . 28 29 . 30										σ×	6.811	00100	2 200
ET BULB TE	. 12 13 .		2								×	7	1	+=
*	9 - 10 11		1.9									+	+	24.7
	7.8		5 6.9								Σx	84869	1000	30636
	.4 5.6		.318.										12	34
	1.2 3.		7.932.332.318.5								Σ_{X^2}	61588	1925115	941486
	0		7.9						9					
Temp.	(F)	2/- 3	TOTAL 7								Element (X)	Rel. Hum.	Wee Bulls	Daw Point

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WILLOW GROVE, PENNSYLVANIA

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5 PSYCHROMETRIC SUMMA JAN 68

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			8	8	2			.7 .5 .4 .3 .2 .1 .0 .0 .4 .4 .4 .3 .1 .0 .0 .0 .4 .3 .3 .2 .1 .1 .0 .0	.5 .4 .3 .2 .1 .0 .0 .4 .3 .3 .2 .1 .0 .0 .0 .4 .3 .3 .1 .1 .0 .0	. 5 . 4 . 3 . 2 . 1 . 0 . 0 . 4 . 3 . 1 . 0 . 0 . 4 . 3 . 2 . 1 . 0 . 0	. 5 . 4 . 3 . 2 . 1 . 0 . 0 . 4 . 4 . 3 . 1 . 0 . 0	.5 .4 .3 .2 .1 .0 .0 .5 .4 .4 .3 .1 .0 .0	.5 .4 .3 .2 .1 .0 .0	.5 .4 .3 .2 .1 .0 .0	.5 .4 .4 .3 .2 .1 .0 .0	7 .5 .4 .3 .2 .1 .0 .0	.7 .5 .4 .3 .2 .1 .0 .0	.7 .5 .4 .3 .2 .1 .0 .0	0. 0.		0.00						20. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	0. 0. 7. 2. 2. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.	0. 0. 1. 2. 2. 4. 4.	0. 0. 1. 2. 2. 4. 4.	0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	0. 1. 2. 2. 4. 4.	0. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	0. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	20.
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				8		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		7 .5 .4 .3 .2 .1 .0 .0 .5 .4 .3 .1 .0 .0 .4 .3 .3 .1 .0 .0	7 .5 .4 .3 .2 .1 .0 .0 .4 .3 .3 .2 .1 .0 .0	7 . 5 . 4 . 3 . 2 . 1 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	5 4 3 2 1 0 00	.7 .5 .4 .3 .2 .1 .0 .0 .4 .4 .3 .1 .0 .0	7 .5 .4 .3 .2 .1 .0 .0	7 .5 .4 .3 .2 .1 .0 .0	. 7 . 5 . 4 . 3 . 2 . 1 . 0 . 0 . 5 . 4 . 3 . 1 . 0 . 0	7 .5 .4 .3 .2 .1 .0 .0	.7 .5 .4 .3 .2 .1 .0 .0	.7 .5 .4 .3 .2 .1 .0 .0						0. 7. 7	0. 7. 7	0. 7. 7	0. 7. 7. 4.	0. 0. 7. 2. 2. 4. 4.			0. 0. 2. 2. 1. 0	0. 0. 2. 2. 1. 0		0. 0. 1. 2. 2. 4. 4.	0. 1. 2. 2. 4. 4.	0. 1. 2. 3. 4. 4.	0. 1. 7. 7. 4.	0. 1. 7. 7. 4.	0. 7. 7. 7.
								7 .5 .4 .3 .2 .1 .0 .0 .5 .4 .3 .1 .0 .0 .4 .3 .3 .1 .0 .0	7 .5 .4 .3 .2 .1 .0 .0 .5 .4 .3 .2 .1 .0 .0 .4 .3 .3 .2 .1 .0 .0	7 . 5 . 4 . 3 . 2 . 1 . 0 . 0 5 . 4 . 3 . 2 . 1 . 0 . 0 6 . 3 . 3 . 1 . 0 . 0		7 .5 .4 .3 .2 .1 .0 .0 .5 .4 .3 .2 .1 .0 .0	7 .5 .4 .3 .2 .1 .0 .0	7 .5 .4 .3 .2 .1 .0 .0	7 .5 .4 .3 .2 .1 .0 .0	7 .5 .4 .3 .2 .1 .0 .0	7 .5 .4 .3 .2 .1 .0 .0	.7 .5 .4 .3 .2 .1 .0 .0									2. 7. 7. 7. 1.	0. 0. 1. 2. 2. 4. 4.	0. 0. 1. 2. 2. 4. 4.	0. 0. 7. 2. 2. 4. 4.	0. 0. 1. 2. 2. 4. 4.	0. 0. 1. 2. 2. 4. 4.				0. 1. 2. 3. 4.	0. 1. 7. 7.	0. 7. 7. 4.	0. 7. 7. 4.
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				24				7 .5 .4 .3 .2 .1 .0 .0 .5 .4 .3 .1 .0 .0 .4 .3 .3 .1 .0 .0	7 .5 .4 .3 .2 .1 .0 .0 .4 .3 .3 .2 .1 .0 .0 .4 .3 .3 .2 .1 .1 .0 .0	5 4 3 2 1 0 0 0	. 5 . 4 . 3 . 2 . 1 . 0 . 0 . 6 . 4 . 3 . 1 . 0 . 0	7 .5 .4 .3 .2 .1 .0 .0 .4 .4 .3 .1 .0 .0	5 4 3 1 0 0 0	7 .5 .4 .3 .2 .1 .0 .0	. 7 . 5 . 4 . 3 . 2 . 1 . 0 . 0 	7 .5 .4 .3 .2 .1 .0 .0	.7 .5 .4 .3 .2 .1 .0 .0	.7 .5 .4 .3 .2 .1 .0 .0					0	0. 1. 2	0. 1. 2	0. 1. 2	0. 1. 7. 4.	0. 0. 2. 2. 2. 4. 4.					0. 0. 0. 0. 0. 0. 0. 0.	0. 0. 1. 2. 2. 4. 4.	0. 0. 1. 2. 3. 4. 4.	0. 1. 7. 7. 4.	0. 1. 7. 7. 4.	0. 1. 7. 7. 4.	0. 1. 7. 7.
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								7 .5 .4 .3 .2 .1 .0 .0 .4 .3 .3 .1 .1 .0 .0	7 .5 .4 .3 .2 .1 .0 .0 .4 .3 .3 .2 .1 .0 .0	7 .5 .4 .3 .2 .1 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	5 4 3 2 1 0 0	. 7 . 5 . 4 . 3 . 2 . 1 . 0 . 0 4 . 3 . 3 . 2 . 1 . 1 . 0 . 0	5 4 3 2 1 0 0	7 . 5 . 4 . 3 . 2 . 1 . 0 . 0	7 .5 .4 .3 .2 .1 .0 .0	7 . 5 . 4 . 3 . 2 . 1 . 0 . 0	2	7 .5 .4 .3 .2 .1 .0 .0		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				2	2	2	2	0. 2. 2. 1. 0	0. 1. 2. 2. 4. 4.	0. 1. 2. 2. 4. 4.	0. 1. 2. 2. 4. 4.	0. 1. 2. 2. 4. 4.	0. 1. 2. 2. 4. 4.	0. 1. 2. 2. 4. 4.	0. 1. 2. 2. 4. 4.	0. 1. 2. 3. 4.	0. 1. 7. 3. 4.	0. 1. 7. 9.	0.
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8. 8. 8. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4	4	8. 8. 8. 8. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	3 . 3 . 1 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	8. 8. 8. 8. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	3 . 2 . 2 . 3 . 1 . 1 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	3 . 3 . 1 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	.3 .3 .2 .1 .0 .0 .0	.3 .3 .2 .1 .0 .0 .0 .3 .3 .1 .1 .0 .0	.3 .3 .2 .1 .0 .0 .0 .3 .3 .2 .1 .1 .0 .0	.3 .3 .2 .1 .0 .0 .0	3 .3 .2 .1 .0 .0 .0	3 .3 .2 .1 .0 .0 .0	0. 0. 0. 1. 6. 4. 4.	0. 0. 1. 8. 4.	0. 0. 0. 4.			5 -3 -3 -2 -1 -0 -0	5 -3 -3 -2 -1 -0 -0	25 -3 -3 -2 -1 -0 -0	2 - 2 - 3 - 5 - 1 - 0 - 0	2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	3 2 2 0 0 0	3 2 2 0 0 0	3 2 2 0 0 0	3 3 3	5 3 3 2 1 0 0 0	5 3 3 2 1 .0		. 5 . 3 . 3 . 2 . 1 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	. 5 . 3 . 3 . 2 . 1 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0		5 -3 -3 -2 -1 -0 -0	5 -3 -3 -2 -1 -0 -0	5 -3 -3 -2 -1 -0 -0	2 3 3 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2 3 3 5 5 1 0 0 0 0	2 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
3 . 3 . 1 . 1 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	3 3 3 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	3 . 2 . 2 . 1 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	3 . 3 . 1 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	3	3 .3 .1 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	.3 .3 .2 .1 .0 .0 .0	.3 .3 .2 .1 .1 .0 .0	.3 .3 .2 .1 .0 .0 .0 .3 .3 .2 .1 .1 .0 .0	.3 .3 .2 .1 .0 .0 .0	.3 .3 .2 .1 .1 .0 .0	3 .3 .2 .1 .0 .0 .0	00 00 00 10 80 90	0. 0. 0. 1. 6. 4. 4.	0.00			5 -3 -3 -2 -1 -0 -0	5 -3 -3 -2 -1 -0 -0	5 6 3 2 2 1 00 00	5 6 3 2 1 00 00	5 3 2 1 0 0	5 3 2 1 0 0	5 3 2 1 0 0	5 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 -3 -3 -2 -1 -0 -0	5 -3 -3 -2 -1 -0 -0	5 -3 -2 -1 .0 .0	5 -3 -2 -1 .0 .0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0
3. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	3. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.		**************************************	3	3	**************************************	3 3 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	.3 .3 .2 .1 .0 .0 .0 .3 .3 .1 .1 .0 .0	.3 .3 .2 .1 .0 .0 .0 .3 .3 .1 .1 .0 .0	.3 .3 .2 .1 .0 .0 .0 .3 .3 .2 .1 .1 .0 .0	.3 .3 .2 .1 .0 .0 .0	.3 .3 .2 .1 .1 .0 .0	3 3 2 1 0 00 00	0. 0. 0. 1. 8. 4.	0. 0. 0. 1. 8. 4. 4.	0 0 0			.5 .4 .3 .2 .1 .0 .0	.5 .4 .3 .2 .1 .0 .0	5 -3 -3 -2 -1 -0 -0	5 -3 -3 -2 -1 -0 -0	5 - 3 - 2 - 1 - 0 - 0	5 3 2 1 0 00	5 3 2 1 0 00	5 3 2 1 0 00	5 3 2 1 0 0	5 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 00	5 3 3 2 1 0 00	5 3 3 2 1 0 00	5 3 3 2 1 0 0	5 .3 .3 .2 .1 .0 .0	5 .3 .2 .1 .0 .0	5 . 3 . 2 . 1 . 0 . 0	5 -3 -2 -1 -0 -0	5 3 2 1 0 00
			2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	3 3 3 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3	2 2 2 3 3 3 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 . 3 . 1 . 1 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	.3 .3 .2 .1 .1 .0 .0 .3 .3 .1 .1 .0 .0	.3 .3 .1 .1 .0 .0		.3 .3 .2 .1 .1 .0 .0	.3 .3 .2 .1 .1 .0 .0	2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	00 00 00 00 00 00	0. 0. 0	0. 0. 0.			.5 .4 .3 .2 .1 .0 .0	.5 .4 .3 .2 .1 .0 .0	.5 .3 .3 .2 .1 .0 .0	.5 .3 .2 .1 .0 .0	5 3 3 2 1 00 00	5 - 3 - 2 - 1 - 0 - 0	5 - 3 - 2 - 1 - 0 - 0	5 - 3 - 2 - 1 - 0 - 0	5 - 3 - 2 - 1 - 0 - 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 .3 .3 .2 .1 .0 .0	5 .3 .3 .2 .1 .0 .0	. 5 . 4 . 3 . 2 . 1 . 0 . 0	. 5 . 4 . 3 . 2 . 1 . 0 . 0	. 5 . 4 . 3 . 2 . 1 . 0 . 0	5 -3 -2 -1 -0 -0
		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		3 .3 .3 .1 .1 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	3 .3 .3 .1 .1 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	.3 .3 .2 .1 .1 .0 .0	.3 .3 .2 .1 .1 .0 .0	3 .3 .2 .1 .1 .0 .0	3 .3 .2 .1 .1 .0 .0	.3 .3 .2 .1 .1 .0 .0	20 00 10 10 10 10	Do Do To Go 90	0. 0. 0. 0. 4.				.5 .4 .3 .2 .1 .0 .0	.5 .4 .3 .2 .1 .0 .0	.5 .4 .3 .2 .1 .0 .0	.5 .4 .3 .2 .1 .0 .0	5 -3 -3 -2 -1 -0 -0	5 -3 -3 -2 -1 -0 -0	5 -3 -3 -2 -1 -0 -0	5 -3 -3 -2 -1 -0 -0	5 - 3 - 2 - 1 - 0 - 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 -3 -3 -2 -1 -0 -0	5 . 3 . 3 . 2 . 1 . 0 . 0	5 .3 .2 .1 .0 .0	5 . 3 . 2 . 1 . 0 . 0			5 - 3 - 2 - 1 - 0 - 0
				3 3 3 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0			3 2 2 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 .3 .2 .1 .1 .0 .0	3 .3 .2 .1 .1 .0 .0	3 .3 .2 .1 .1 .0 .0		.3 .3 .2 .1 .1 .0 .0	2 2 2 2	700	X		- W - W - W - W - W - W - W - W - W - W		.5 .4 .3 .2 .1 .0 .0	.5 .4 .3 .2 .1 .0 .0	.5 .4 .3 .2 .1 .0 .0	.5 .4 .3 .2 .1 .0 .0	5 - 3 - 2 - 1 - 0 - 0	5 - 3 - 2 - 1 - 0 - 0	5 - 3 - 2 - 1 - 0 - 0	5 - 3 - 2 - 1 - 0 - 0	5 - 3 - 2 - 1 - 0 - 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	5 3 3 2 1 0 0	.5 .3 .3 .2 .1 .0 .0	.5 .3 .3 .2 .1 .0 .0	.5 .3 .3 .2 .1 .0 .0	5 - 3 - 2 - 1 - 0 - 0	5 . 3 . 2 . 1 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	5 . 4 . 5 . 1 . 0 . 0	5 3 3 2 1 00 00 00 00 00 00 00 00 00 00 00 00 0	5 3 3 2 1 00 00 0	5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -

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YEARS

73-77

WILLOW GROVE, PENNSYLVANIA

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0	PSYCHROMETRIC	SUMMA

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(e)	0	1.2	3.4	5.6	7 - 8 9		12 13 .	10 11 . 12 13 . 14 15 . 16 17 . 18 19 . 20 21 . 22 23 . 24 25 .	6 17 - 1	8 19 . 2	0 21 .	22 23 .	24 25	. 26 27	7 - 28 29	9 . 30	231	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
52	7	10	6		0.							_						312	312	486	476
27	-	9	10	3	0													267	267		
28	-	15	30	2	c				-			_	-	-				236	236		
	•	. 14										_						. 8 .	187		
63	•	7	-		+	+	+	-	-	1	1	+	+	+	1	1				L	
21	•	•	•	•														193	130	513	
19	.1	9										-	-	1	-	1		137	137		346
17	0	3	.3	0								-						122	122		
-	C	3																78	78	137	264
13	0	60	-		-	-	-	-	-		-	-	-	-				54	54		
-													-					43	42	3	225
	2	200		+	+	+	+	-	-	-	-	-	-	+	-			31	2:		1
	•	•																		200	
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2		-					_							-				13	61	17	_
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~		0																-	-	~	67
-	0	0																9	9	•	
-	0	0																2	2	*	36
	0												_					-	1		18
1 -19	0	-			-								-					-	7	7	19
																					14
-10/-11												-									6
-12/-13																					80
-14/-15					-		-					-									*
-17												-									2
-18/-19																					1
	5.32	1.22	3.41	5.321.223.417.111.5		8.1 5.	5.73	3.8 2.1	1 101	4.	•	2	0	0	-	1	-		14608		14605
																		14606		14606	
Element (X)		2×2		M	ZX	×	-	σ×	No.	Obs.					Mean No.	o. of H	ours wit	of Hours with Temperature	ture		
Rel. Hum.	1	71683005	900	98	985745	67.5	5 18.	781	14	14605	VI	20 F	₹ 32 F		₹ 67 F	Al	≥73 F	280 F	5 4	-	Total
Dry Bulb	4	46462401	401	78	780183	53.4	-	8.117	14	14608		6.0	1224	. 82	6.01224.82526.01485.0	0148	15.0	546.0		7.2 8	8760.0
Wet Bulb	3	37420460	460	69	949669	47.9		16.354	14	14606		0.0	6.01803.8	. 81	321.	8 24	4.2		9	80	8760.0
	-	-		The second name of the last	The same of the same of																

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MEANS AND STANDARD DEVIATIONS

DRY-BULB TEMPERATURES DEG F FROM HOURLY DBSERVATIONS

73-77

WILLDW GROVE, PENNSYLVANIA

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HRS.(L.S.T.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ANNUAL
10	S. D.	11.770	30.8	8.607	47.4	7.750	65.0	4.789	5.366	7.108	8.237	710.420	32.5	16,433
	200	5	•	133	120	2	2	2	2	120			777	
40	MEAN S. D.	27.9	29.6	38.1	45.6	53.7	63.5	67.1	66.8	59.4	8.8	41.5	32.0	47.9
,	TOTAL OBS	155	155 141		7	? -		-	-	-	155	130		18
	MEAN	27.3	28.7	2	9	9		6	00	0	8.3	0	-	48
10	-	11.96210.590	10.590	8.745	9.854	7.390	6.033	4.488	5.476	7.489	8.892	210.560	10.296	17.297
	TOTAL OBS	155	141	15	2	5	2	15	S	2	2	15	15	20
		31.2	34.0	43	4	3.9	2.	~	6.2	00	56.5	47.3		55.
10	S. D.	11.368	10.818	9.44	1.5	8.496	6.876	4.817	5.341	7.122	8.17	910.193	9.479	18.330
	TOTAL OBS	155 141	141	155		15		15	25		15	15	2	=
	MEAN	35.2	38.3		00				0		61.1	51	38.9	0
13	S. D.	11.592	11.385	233	12.433	9.346	7.453	5.230	5.919	0	8.808	1111		18.671
	TOTAL OBS	155 141	141	155	15	5	15	-	15	150	15	7	15	18
	MEAN	36.0	39.8	6	6	00	77.3	2	0	N	-	:		
16	S. D.	11.51711	11.639	9.989	3	-	7.7.4	a	0	-	0	11.02		-
	TOTAL OBS	155	141	155			150	155		150				
	MEAN	32.3	35.8	45	0	*	10		100	7	S	0	5	3
61	s. D.	11.495	10.994	8.663	11.180	8.770	09.9	5.087	5.052	6.859	7.798	10.40	9.47	17.979
	TOTAL OBS	155 141	141	155	-	7	7	-	-	15	15			18
	MEAN	30.3	33.1	41.	0	5	1:	2		1	52.	*		-
22	S. D.	11.407	10.883	26	10.289		N	8	1	6.771	8.17	10.36	19.67	0
	TOTAL OBS	155	155 141	155				155	155			.		
1114	MEAN	31.2	33.8	-	52.2	9	70	74.	(4)	1	54.1	5		
HOURS	S. D.	11.9721	11.528	9.991	12.0301	10.003	8.376	7.32	7.566	8.879	9.72	611.224	10.190	18.117
	TOTAL OBS	1240		1240	1200		-	12	-	-	124	1200	124	1460

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MEANS AND STANDARD DEVIATIONS

WET-BULB TEMPERATURES DEG F FROM HOURLY DRSERVATIONS

				LENNS ILVAN	W									
STATION			TS .	STATION NAME						YEARS				
HRS.(L.S.T.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ANNUAL
		26.3	8.72	35.	4	5	.2	9.	0	6	2011	39.1	0	45.
10	S. D. TOTAL OBS	11.310	9.996	8.510	9.395	7.992	6.279	4.927			155	0		16.11
	MEAN	25.4	26.9	34	-	0	.0	3	4	. 0	5.	8	6	
*0	S. D.	11.456	10.027	8.66	9.568	8.195	6.509	5.281	N	7.562	0	10.458	10.351	16.21
,	TOTAL OBS	155 141	141			-	7	-	-	-	155	150	7	- 8
						1								
		24.9	26.3	34.6	2	8	~	m	W			3/0	29.0	45
07		11.52310.085	10.085	Ø	6.899		5.989			7.452	.311	10.727		
	TOTAL OBS	154	141	15	12	1	2	2	-	13	25	15	3	8
				1		1	-			1		1	1.	
	MEAN	28.1	30.3	38.7	40.3	-	6.49	67.8	68.3	6	20.0	42.2	31.6	6.
10	. D.	10.963	9.918	6		-		4.299	0	0.	2.501	10.2		
	TOTAL OBS	155	140	15	15	15	150	2	-	7	155	15	2	90
	MEAN	20.05		-	00	00	1	0	0	0	52.		1	1
	S. D.		0 474		1	1		3	1		8.354	10.18		
13	TOTAL OBS	10000			200					,	155			
						1	1	1						4
	MEAN	31.3	33.8		8	80	.9	40	6	2	2.	4		-
16	S. D.	10.383		8.53	9.430		5.817	4.399	70	6.60	8.049	10.23	9.086	15.72
	TOTAL OBS	155		-	-	- 1	-	-	-	1	155	-	-	9
												1		
	MEAN	28.8 31.3	31.3	39.4	40.7	2	54.5	67.8	67.7	4.09	44.5	41.0	31.6	***
19	S. D.	10.906	10.036	8.2			-	*		6.9	8.115	10.5	-	0
	TOTAL OBS	155	141	7	255	2	15	2	-	15	155	15		100
	MEAN	27.3	4 00	-	4	26		4		8	47.	0	6	10
	0		700		777		, ,	. 0	**	4. 74		10.07	0	
77	7014101	10.03210.01	10.30	0		0	0		•		•	2	1 8 6	200
	200	200	4	2	120	2	3	2	-		-	2		901
	MEAN	27.8	29.9	38.0	45	34.	63.	96		59.8	4	0.1	100	-
HOILDS	S. D.	11.18510.268	10.268	9.053	9.837	8.371	66.9	5.020	5.508	-	8.9	10.587	6	16.35
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MEANS AND STANDARD DEVIATIONS

DEW-POINT TEMPERATURES DEG F FROM HOURLY DBSERVATIONS

1	WILLOW GROVE,		ENNSYLVANIA	ANIA		73-77	1.1					1	
	- 5	STAT	ATION NAME						YEARS				
JAN.		FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ANNOAL
19.3 20.6 2 14.11412.91312 155 141		2.913	29.0 12.1631 155	35.6	48.2	58.6 7.575 150	61.9	5.901	8.1711 150	43.1 10.746 155	33.7 12.712 150	24.3 12.316 155	18.872
18.8 20.1 2 14.15412.63012 155 141		20.1	28.8 12.0191 155	35.6	47.7	58.5 7.360	6.086	6.207	54.9 8.351 150	42.7 11.140 155	33.4	24.0 12.570 155	40.8 18.883 1826
18.5 20.2 14.11412.4661 154 141	_	20.2	29.1 12.0071 155	36.7	49.2 9.987	59.8 6.808 150	5.690	63.3	8.162	42.7 11.177 155	33.1	23.2 12.565 155	41.3
21.0 22.3 3 14.02812.87213 155 140	areast .	2.872	30.9	37.3	50.6 10.846 155	7.476	62.6	64.1	56.6 9.0061	44.3 3	35.5 13.305 150	25.2 12.105 155	18.950
21.9 23.2 3 13.57412.45113		23.2	31.5	2.759	50.5 10.738 155	7.838	62.0 7.125 155	63.5	56.4 9.204 150	-	35.9 13.136 150	26.0 11.707	18.556
21.9 22.9 3 13.44112.95913 155 141		22.9	31.2 13.2301 155	37.1 13.3321 150	50.3 11.200 155	7.746	61.6	63.2	9.1901	1.932	34.8	25.5 12.237 155	42.3 18.624 1826
20.7 22.4 3 13.96013.25713 155 141		13.257	30.2 13.1131 155	36.5 13.245 150	49.5 10.798 155	58.9 8.094 150	62.2	63.2	8.3101 150	43.3	34.7 12.976 150	24.8 12.178 155	16.759
19.6 21.9 2 13.64413.40912 155 141		13.409	29.9	35.9 12.65910 150	49.6 10.468 155	58.8 7.860 150	62.3 5.960 155	5.750	55.9 7.916 150	43.4	34.2	611.995	16.785
20.2 21.7 3 13.90012.88512 1239 1127		21.7	30.1 12.72912 1240	36.5	10.545	7.608	6.300	63.2	8.5401 1200	43.4	13.044	24.7 12.205 1240	18.845

RELATIVE HUMIDITY

WILLOW GROVE, PENNSYLVANIA 14793 STATION

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CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

1	HOURS			PERCENTA	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN	OF RELATIVE	HUMIDITY GRE	SATER THAN			MEAN	TOTAL
MONIN	(L.S.T.)	%01	20%	30%	40%	20%	%09	%02	80%	%06	HUMIDITY	OBS.
JAN	10	100.0	100.0	100.0	96.8	89.0	67.1	41.3	21.3	7.7	67.6	155
	90	100.0	100.0 100.0	100.0	7.86	88.4	0.69	49.7	23.2	9.7	69.5	155
	10	100.0	100.0 100.0	100.0	4.76	92.2	76.0	53.9	26.0	7.8	70.6	154
	10	100.0	100.0 100.0	100.0	86.8	82.6	9.29	0.04	22.6	8.4	67.0	155
	13	100.0	100.0	8.95	87.1	4.89	47.7	28.4	15.5	4.5	9.09	155
	16	100.0 100.0	100.0	97.4	82.6	63.2	45.2	1.72	12.3	4.5	58.7	155
	19	100.0	100.0	100.0	91.6	75.5	57.4	34.5	18.1	4.5	63,7	155
	22	100.0	100.0	4.66	94.8	83.9	59.4	36.3	21.3	7.1	62.9	155
TOT	TOTALS	100.0	100.0 100.0	99.2	93.2	80.4	6003	38.8	20.0	8.0	65.5	1239

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RELATIVE HUMIDITY

WILLOW GROVE, PENNSYLVANIA STATION MAKE 14793 STATION

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PERIOD

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CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

NOTAL	OBS.	141	141	141	140	141	141	141	161		1127
MEAN	HUMIDITY	67.3	0.69	71.7	64.3	57.3	54.3	9.09	65.3		43.7
	%06	11.3	12.1	14.9	12.1	8.5	4.0	9.5	12.8		10.0
	80%	22.7	25.5	32.6	22.1	19.1	14.2	17.0	22.0		21.9
ATER THAN	70%	38.3	8.95	\$0.4	35.7	24.1	24.8	29.1	35.5		35.6
PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN	%09	61.7	66.7	71.6	52.1	34.0	34.0	43.3	56.7		52.8
OF RELATIVE	\$0%	82.3	84.4	9006	75.0	56.0	48.2	66.7	76.6		72.5
SE FREQUENCY	40%	96.5	86.3	97.9	92.9	78.7	73.0	85.1	92.2		80.5
PERCENTA	30%	99.3	99.3	100.0	98.6	95.0	4.68	97.2	86.3	7	97.3
	20%	99.3	100.0	100.0	100.0	100.0	99.3	100.0	100.0		8.00
	%01	100.0	100.0	100.0	100.0 100.0	100.0 100.0	100.0	100.0 100.0	100.0		100.0
HOURS	(LS.T.)	01	40	0.7	10	13	16	19	22		TOTALS
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RELATIVE HUMIDITY

WILLOW GROVE, PENNSYLVANIA 14793 STATION

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CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

NOTAL	OBS.	155	155	155	155	155	155	155	155	
MEAN	HUMIDITY	68,5	71.5	73.6	63.7	86,8	54.6	89.8	99.4	
	%06	16.8	20,0	69.62	10.1	14.2	15.5	10.1	10.1	
	%08	0.62	36.1	45.6	53.9	9.02	20.0	24.5	28.4	
ATER THAN	70%	45.8	52.9	52.9	37.4	50.92	29.0	32.3	45.6	
PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN	%09	63.9	0.69	73.5	49.0	37.4	32.9	41.9	55.5	
OF RELATIVE	20%	79.4	85.8	1.68	66.8	50.3	46.5	\$6.6	70.3	
SE FREQUENCY	40%	92.3	93.5	95,5	86.3	0.69	65,2	76.1	4.88	
PERCENTA	30%	4.76	7.86	100.0	4.76	1.68	80.0	89.7	95.5	
	20%	100.0	100.0	100.0 100.0	100.0	7.66	7.86	7.86	100.0	
	10%	100.0 100.0	100.0	0.001	100.0 100.0	100.0	100.0	100.0	100.0	
HOURS	(LS.T.)	10	90	07	10	13	10	19	22	112
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RELATIVE HUMIDITY

WILLOW GROVE, PENNSYLVANIA 14793 STATION

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PERIOD

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

TOTAL	OBS.	150	150	150	150	150	150	150	150		1200
MEAN	HUMIDITY	65.9	70.0	4.69	56.5	\$0.4	7.84	53.4	4.09		59.3
	%06	13.3	16.7	12.7	8.0	8.7	6.7	8.7	11,3		11.0
	80%	24.0	30.0	28.7	14.7	13.3	13.3	14.0	20.0		31.2 19.8
ATER THAN	20%	45.0	0.94	45.3	26.0	18.7	19.3	22.7	29.3		31.2
PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN	%09	55,3	70.0	71.3	36.7	25.3	23.3	36.0	0.64		45.8
OF RELATIVE	20%	77.3	84.7	84.7	54.0	42.7	36.7	48.7	62.7		61.4
SE FREQUENCY	40%	90.0	7.46	95,3	80.0	58.7	52.7	68.0	81.3		77.6
PERCENTAC	30%	99.3	99.3	100.0	93.3	83.3	71.3	84.7	7.46		90.7
	20%	100.0	100.0	100.0 100.0 100.0	100.0	97.3	0.46	98.0	100.0		98.7
	10%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0
HOURS	(L.S.T.)	10	40	07	10	13	16	19	22		TOTALS
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RELATIVE HUMIDITY

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CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

TOTAL	OBS.	155	155	155	155	155	155	155	155		1240
MEAN	HUMIDITY	7.77	81.3	16.9	64.5	56.7	55.6	61.3	73.0		68.4
	%06	20.02	7.62	21,3	6.7	5.8	5.2	10.3	16.8		14.9
	%08	0.64	55.5	44.5	21.3	15.5	14.2	18.7	38.1		32.1
ATER THAN	20%	67.7	78.7	0.69	37.4	25.2	26.5	34.8	36.8		49.5
PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN	%09	85.2	89.0	81.3	54.5	36.8	36.1	50.3	75.5		63.6
OF RELATIVE	20%	95.5	95.5	94.8	77.4	54.2	53.5	62.6	89.0		77.8
SE FREQUENCY	40%	97.4	100.0	98.7	91.0	80.0	74.8	83.2	96.1		90.2
PERCENTAC	30%	100.0	100.0	100.0	4.66	8.46	91.6	95.5	7.86		97.5
	20%	100.0	100.0	100.0	100.0	100.0	97.4	99.4	100.0		99.6
	10%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0
HOURS	(LS.T.)	10	90	70	10	13	16	19	22	TOTALS	
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RELATIVE HUMIDITY

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PERIOD

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CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

TOTAL	OBS.	150	150	150	150	150	150	150	150	1200
MEAN	HUMIDITY	80.7	85.1	80.8	67.1	58,3	56,2	62,5	74.2	70.6
	%06	19,3	28.7	18,0	0.0	4.0	2,7	4:7	14.7	12.3
	80%	0.09	72.7	53,3	20.7	6.3	10.0	15.3	37.3	42.6 34.8 12.3 70.6
ATER THAN	20%	81.3	91.3	84.7	39.3	15.3	18.0	30.7	58.7	42.4
PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN	%09	92.7	98.7	100.0	1.40	45.0	34.0	51.3	0.48	70.0
OF RELATIVE	\$0%	98.7	100.0	100.0	86.7	69.3	58.7	76.0	1.46	4 20
SE FREQUENCY	40%	100.0	100.0	100,0	100,0	87,3	84.7	7.26	7.86	4 50
PERCENTA	30%	100.0 100.0	100.0 100.0 100.0	100.0 100.0 100.0 100.0	100.0 100.0	100.0	88.3	97.3	100.0	4.60
	20%	100.0		100.0	100.0	100.0 100.0	100.0	100.0	100.0	0.001
	10%	100.0	100.0 100.0	100.0 100.0	100.0	100.0	100.0	100.0 100.0	100.0	9
HOURS	(LS.T.)	01	40	07	10	13	16	61	22	ALS
HINOM		NO								TOTALS

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14793 WILLOW GROVE, PENNSYLVANIA

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PERIOD

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MUNCH	HOURS			PERCENTA	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN	Y OF RELATIVE	HUMIDITY GRE	ATER THAN			MEAN	TOTAL
NOW I	(1.5.7.)	10%	20%	30%	40%	30%	%09	70%	80%	%0%	HUMIDITY	OBS.
10	10	100.0	100.0	0.001 0.00	4.66	4.66	6.26	78.7	49.7	4.8	78.3	155
	90	100.0	100.0	0.001 0.001 0.00	100.0	4.66	7.86	80.3	66.9	15.5	83.1	155
	7.0	100.0	100.0	0.001 0.001 0.00	100.0	4.66	8.96	75.5	53.5	7.7	78.5	155
	10	100.0	100.0 100.0 100.0	100.0	7.86	79.4	51.0	29.0	9.7	3.2	62.4	155
	13	100.0	100.0	7.86	81.3	56.8	26.5	4.7	4.5	1.9	53.2	155
	16	100.0	100.0	4.66	78.1	47.7	22.6	12.3	7.7	9.	52.0	155
	19	100.0	100.0	0.001 0.00	84.2	72.9	45.2	18.7	11.0	5.6	6009	159
	22	100.0	100.0	0.00 100.0 100.0	100.0	97.4	85.2	\$7.4	32.6	3.2	71.9	155
0	TOTALS	9	9	0	76		0 77	5 47	0.80		3.44	963

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PERIOD

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

NO OF	OBS.	155	155	155	155	155	155	155	154	1239
MEAN	HUMIDITY	83.2	86,3	84.3	67.3	57.7	57,4	4.99	77.1	72.5
	%06	13,5	28,4	20.02	2,6	9.	4.5	3.9	8.8	6.6
	%08	0.69	78.7	67.7	16.1	6.9	6.7	16.1	39.6	37.9
ATER THAN	70%	93.5	96.1	34.5	37.4	16.1	20.0	38.1	74.7	58.8
PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN	%09	98.7	100.0	1.66	66.5	38.1	33.5	0.09	96.8	74.1
OF RELATIVE	\$0%	100.0	10000	100.0	93.5	67.7	\$6.65	89.7	100.0	88.8
GE FREQUENCY	40%	100.0	100,0	100,0	100,0	95.5	80.3	9.66	100.0	98,2
PERCENTA	30%	100.0 100.0 100.0	100.0	100.0 100.0 100.0	0.001	100.0	4.66	0.001	100.0	99.9
	20%	0	0.			0	100.0		100.0	100.0
	10%	100.0 100	100.0 100	100.0 100.0	100.0 100.0	100.0 100	100.0 100.0	100.0 100.0	100.0	100.0
HOURS	(LS.T.)	01	*	07	10	13	91	19	22	TOTALS
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RELATIVE HUMIDITY

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CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

NO OF	+	150	150	150	150	150	150	150	150	1200
MEAN	HUMIDITY	83.4	85.4	86.8	68,1	58.6	57.5	68.6	78.6	73.4
	%0%	21.3	25.3	34.0	6.7	3.3	5.3	6.7	14.0	14.6
	%08	63.3	72,7	77.3	21.3	10.7	12,7	23,3	51.3	41.6
ATER THAN	70%	91.3	0.96	93.3	43.3	21.3	22.7	0.44	74.7	8.04
HUMIDITY GRE	%09	0.86	98.7	88.8	0.89	39.3	36.0	68.7	93.3	75.2
PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN	20%	100.0	100.0	100.0	88.7	1.99	58.7	86.7	100.0	87.6
GE FREQUENC	40%		100.0 100.0 100.0 100.0 100.0	100,0	7.86	87.3	82.7	86.66	100,0	0.49
PERCENTA	30%	100.0 100.0 100.0 100.0	0.001	0.001	0.001	100.0	98.0	0.001	100.0 100.0	8.00
	20%	100.0	100.0	100.0	100.0 100.0 100.0		100.0	100.0		0.001
	10%	100.0	100.0	100.0 100.0	100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	0.001
HOURS	(LS.T.)	10	40	07	10	13	16	19	22	ALS
TACA	unow.	SEP								TOTALS

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RELATIVE HUMIDITY

WILLOW GROVE, PENNSYLVANIA 14793 STATION

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CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

TOTAL	OBS.	155	155	155	155	155	155	155	155		1240
MEAN	HUMIDITY	77.9	80.4	81.7	65.7	56.7	55.1	65.8	73.6		69.69
	%06	17.4	22,6	28.4	10.3	7.1	5,5	9.0	12.3		14.0
	%08	43.9	55.5	57.4	24.5	16.1	15.5	20.0	34.2		33.4
ATER THAN	%02	71.6	77.4	78.1	34.8	23.2	22.6	36.8	57.4		50.2
PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN	%09	86.5	91.6	92.9	55.5	34.8	33.5	57.4	81.3		66.7
OF RELATIVE	%0\$	98.1	98.1	4.66	78.7	54.2	0.64	83.2	95.5		82.0
SE FREQUENCY	40%	100.0	4.66	100.0	95.5	81.9	76.1	93.5	7.86		93.1
PERCENTAC	30%	100.0	100.0	100.0	100.0	96.1	93.5	4.66	100.0		98.6
	20%	100.0 100.0			100.0	100.0	100.0	100.0	100.0		100.0
	%01	100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0	100.0 100.0	100.0		100.0
HOURS	(L.S.T.)	01	40	7.0	10	13	16	19	22		ALS
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RELATIVE HUMIDITY

14793 STATION

WILLOW GROVE, PENNSYLVANIA STATION NAME

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CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CANON			PERCENTA	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN	Y OF RELATIVE	HUMIDITY GRE	ATER THAN			MEAN	TOTAL
2	%01	20%	30%	40%	%05	%09	%02	80%	%06	HUMIDITY	ogs.
10	100.0	100.0	100.0	98.7	93.3	71.3	48.7	25.3	14.7	71.1	150
40	100.0	100.0	100.0	100.0	95.3	79.3	54.7	32.7	16.7	73.8	150
07	100.0	100.0	100.0	6. 66	98.0	84.0	61.3	37.3	18.0	75.3	150
10	100.0	100.0	100.0	98.0	75.3	47.3	36.7	24.7	14.0	65.7	150
13	100.0	100.0	100.0	82.0	50.7	33.3	22.0	17.3	6.7	57.0	150
91	100.0	100.0	0.96	78.3	48.0	32.0	24.7	18.0	8.0	56.1	150
19	100.0	100.0	6.56	95.3	82.0	50.0	33.3	22.7	6.9	65.0	150
22	100.0	100.0	99.3	98.7	92.0	63.3	38.7	22.0	13.3	68.6	150
	100-0	100.0	66.3	43.4	79.3	57.6	0.04	25.0	12.6	9.99	1200

RELATIVE HUMIDITY

WILLOW GROVE, PENNSYLVANIA 14793 STATION

73-77

PERIOD

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

NO OF	OBS.	155	155	155	155	155	155	155	155		1240
RELATIVE	HUMIDITY	72.9	73,3	72.7	4.89	61.5	8.09	8,99	71.2		68.5
	%06	16.8	17.4	14.8	13.5	0.6	6.5	8.4	13,5		12.5
	80%	32.3	34.2	32.9	53.9	18.1	15.5	24.5	25.2		25.8
ATER THAN	70%	31.6	54.5	\$5.5	43.5	29.0	29.0	38.1	52.3		44.1
HUMIDITY GRE,	%09	78.7	78.7	75.5	65.2	47.7	44.5	67.1	76.1		1.99
OF RELATIVE	\$0%	92.9	94.8	94.5	83.2	4.89	1.69	80.6	91.0		4.48
PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN	40%	100.0	100.0	4.66	98,1	6.06	84.5	94.2	7.86		7.56
PERCENTAC	30%	100.0 100.0	100.0 100.0	100.0	4.66	100.0	98.1	7.86	100.0		8.66
	20%	100.0		100.0	100.0	100.0	100.0	100.0	100.0		100.0
	10%	100.0	100.0 100.0	100.0	100.0 100.0	100.0	100.0 100.0	100.0	100.0		100.0 100.0
HOURS	(LS.T.)	01	90	07	10	13	16	19	22		TOTALS
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RELATIVE HUMIDITY

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CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MEAN RELATIVE HUMIDITY 70.6 65.5 63.7 64.2 68.4 67.5 59.3 17.3 11.0 10.9 14.9 12.3 6.8 5.4 8 21.9 28.1 19.8 20.0 34.8 28.2 32.1 80% 39.9 38.8 35.6 31.2 49.5 46.5 \$2.4 PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN 70% 45.5 70.9 60.3 52.5 63.6 52.9 6.49 809 85.5 72.5 77.8 68.5 61.4 81.6 80.4 50% 77.6 0.46 89.5 30.5 93,2 83.3 95.4 \$64 99.2 97.3 90.7 97.5 96.6 86.8 93.6 30% 9.66 99.8 98.7 100.0 100.0 100.0 100.0 100.0 96.6 20% 100.0 0.001 100.0 0000 100.0 8 HOURS (L.S.T.) ALL

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PERCENTAGE FREQUENCY OF AIR TEMPERATURE	•

WIND DIRECTION

WILLOW GROVE, PENNSYLVANIA

14793

JANUARY

ALL

JAN 1973-DEC 1977

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		-	-		NO CINECISCO	20.10					
TEMP.	NNW N A	NNE A NE	N *0	ESE 2 SE	8.5 8.5	35W 8 SW	W5W W W	WNW & NW	CALM	TOTAL FREG.	% OF TOTAL
122+											
17 TO 121											
112 70 116											
111 07 70											
801 01 20											
101 07 76											
92 10 96											
87 10 91											
82 TO 86											
18 07 77											
72 TO 76											
17 07 79							100.0			-	
62 TO 66					50.0	30.0	10.0	10.0		10	
19 01 75				5.3	31.6	21.1	36.8	5 : 3		15	
52 70 56	3,3		3.3	13.3	13.3	20.0	30.0	13.3		30	
12 07 74	6.7			10.9	14.5	10.9	30.9	2000	5.5	55	
42 TO 46	13.3		6.2	000	7.1	12.4	19.5	0667		113	1.6
37 TO 41	6.8	3.4	8.4	2.0	5.6	1.3	19.0	31.8		179	14.4
32 70 36	11.3		14.1	4.2	9.6	8.5	10.0	19.7		213	17.2
27 TO 31	14.2	2.2	1.1	9	3.8	0.0	22.4	1997	2002	183	14.8
22 70 26	11.6		5.	3.5	5.2	9.6	17.9	6.87	13.9	173	14.0
17 10 21	19.2		3.1	1.5		3.8	31.5	22.3	15.4	130	10.5
12 70 16	13.9	3.8	3			1.3	35.4	8677		44	6.4
7 70 11	7.1						49.4	39.3		202	2.3
10 6	8.9						58.8	5067	11.8	1.7	1.4
-3 70 1	12.5						65.5	25.0		9	••
-8 10-4							20.0	20.0		2	7.
-13 70 -9											
-18 10-14											
-23 TO-19											
-28 TO -24											
-33 TO-29											
-38 TO-34											
~43 TO -39											
-48 10-44											
-53 10-49											
-58 TO -54											
-59 & LWR									1		
TOTALS	11.5	2.7	0.,	* * *	2.1	*.	23.8	9667	13.4	1640	1540 100.0

NAVWEASERVCOM

PERCENTAGE FREQUENCY OF AIR TEMPERATURE

WIND DIRECTION

JAN 1973-DEC 1977

WILLOW GROVE, PENNSYLVANIA

14793 STATION

ALL

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1821 1821 1822 1822 1823 1824						WIND DIRECTION	CLION					
18.2 18.2 18.2 18.3 18.4 18.5	TEMP.	× z	N N N	EN S	ESE	SSE	SSW &	wsw %	> N N N	CALM	TOTAL FREG.	% OF TOTAL
18.2 25.0	122+											
18.2 18.2 18.2 18.3 18.4 28.5 18.5 18.5 18.5 18.6 18.7 18.7 18.8	12 10 1 21											
18.2 18.2 19.2 19.3 19.4 19.5	112 TO 116											
18.2 25.0 18.2 25.0 25.0 27.3 29.1 29.4 29.2 27.3 29.4 29.4 29.5 29.5 29.6 29.6 29.6 29.6 29.6 29.7 29.6 29.6 29.7 29.6 29.7 29.6 29.7 29.6 29.7 29.6 29.7 29.6 29.7 29.7 29.8	111 OT 701											
18.2 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	102 TO 106											
18.2 2.2 2.3 2.5 2.6 2.7 3 13.6 4.3 13.6 4.7 8.3 12.9 8.8 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8	101 01 76											
18.2 25.0 50.0 27.3 27.3 27.3 27.3 27.3 27.3 27.3 27.3	92 TO 96											
18.2 2.2 2.3 3.4 3.17,4 4.7 2.1 2.2 3.5 3.17,4 4.7 2.1 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5	16 01 78											
18.2 25.0 50.0 27.3 9.1 36;4 9.1 11 25.2 1.5 13.6 4.3 17.4 47.8 21.7 36;4 9.1 11 26.3 1.5 13.6 1.5 12.5 32.5 17.5 8.3 120 1 28.9 4.5 18.9 8.3 10.8 12.1 24.8 14.0 1 28.9 4.5 10.0 2.9 5.9 10.6 8.8 21.6 13.1 22.9 2 28.0 4.4 4.5 18.2 21.0 21.0 22.0 39.1 22.0 3	82 TO 86											
18.2 18.2 28.0 27.0 27.0 27.0 27.0 27.0 27.0 27.0 27	18 01 77											
18.2 2.2 4.3 17.4 4.6 27.8 9.1 9.1 18.2 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1	72 TO 76											
18.2 2.2 1.0 1.0 1.0 1.0 1.0 1.0 1	17 07 78					25.0	50.0		25.0		,	4.
2.2	52 TO 66	18.2					27.3	9.1	3004	9.1	11	1.0
2.2 1.5 13.6 4.3 23.9 23.9 30.4 10.9 4.3 4.5 12.5 32.5 17.9 23.9 17.0 15.1 25.8 28.8 10.0 4.5 16.1 25.8 28.8 10.0 4.5 16.1 25.8 21.1 25.0 13.1 25.0 13.1 25.0 13.1 25.0 13.1 25.0 13.1 25.0 13.0 27.1 13.0 27.1 17.0 25.0 13.1 25.0 13.1 25.0 27.1 25.0 27.1 13.0 27.1 13.0 27.1 25.0 27.1 27.1 27.1 27.1 27.1 27.1 27.1 27.1	19 01 79				4.3	17.4	47.8	21.7	261		23	2.0
1.5 1.5 13.6 1.5 12.1 25.8 28.8 10.6 4.5 15.1 25.8 28.8 10.6 4.5 15.2 32.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17	52 TO 56	2.2			4.3	23.9	23.9	30.4	1000		04	7.5
8.9 4.5 8.3 12.9 32.5 17.9 8.3 12.9 32.5 17.9 8.3 12.0 32.5 12.0 8.9 12.0 12.1 12.0 12.1 12.0 12.1 12.0 12.1 12.0 12.1 12.0 12.0	12 07 74	1.5	1.5	13.6	1.5	12.1	25.8	28.8	9001		99	5.9
8.9 4.5 8.9 10.8 12.1 24.8 17.9 23.0 13.1 229 13.9 6.9 2.1 2.1 6.8 8.3 17.9 23.0 13.1 229 24.3 13.9 6.9 2.1 2.1 0.3 9.0 27.1 8.3 14.9 25.0 2.3 2.3 2.3 14.8 92.4 4.8 92.4 4.8 21.1 25.0 90 25.0 2.3 2.3 2.3 14.8 92.4 4.8 2	42 TO 46	5.8	. 8	10.0	2.4	8.3	12.5	32.5	21.5		120	10.6
18.2 7.1 10.0 2.9 5.9 10.6 8.8 21.9 17.9 2.9 17.9 2.9 18.2 2.9 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1	37 TO 41	6 8	4.5	6.8	8.3	10.8	15.1	24.8	0		161	13.9
24.3 13.9 6.9 2.1 2.1 6.3 9.0 27e1 8.3 144 25.0 20.0 90 25.0 25.0 25.0 90 90 25.0 25.0 25.0 25.0 90 90 25.0 25.0 25.0 25.0 90 90 90 25.0 25.0 25.0 25.0 90 90 90 90 90 90 90 90 90 90 90 90 90	12 10 36	2.6	0.0	13.5	3.1	4.8	6.9	17.9	9667		627	20.3
20.0 4.4 4.4 21.1 25.0 20.0 90 25.0 2.3 2.3 2.3 13.9 6.9 20.0 90 25.0 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3	27 TO 31	18.2	1.,	10.0	5.9	5.9	10.0	8.8	9017	14.	0.1	19.1
25.0 2.3 2.3 18.2 18.5 18.6 18.6 18.6 18.6 18.6 18.6 18.6 18.6	22 10 26	24.3	13.9	6.9	2.1	2.1	6.0	0.6	10/7		**	12.8
25.0 2.3 2.3 38.1 5.5 2.3 2.3 38.1 5.6 3.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	17 10 21	20.0	4.4	4.4			* .	21.1	9667		06	8.0
28.76	12 TO 16	25.0	2.3	2.3				18.2	3000		**	3.4
	11 01 7	38.1						8.4	967C	0 . 4	17	7.9
	2 70 6	2009							2303		•	6.
	-3 TO 1											
	-8 10-4											
	-13 TO -9											
	-18 TO-14											
	-23 TO-19											
	-28 TO-24											
	-33 10-29											
	-38 TO-34											
	-43 TO -39											
	-48 TO-44											
4.01 4.15 × 01 4.11 4.10 × 2.11 4.10 × 2.11	-53 TO -49											
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-58 10-54											
	-59 & LWR						- 1	- 1		-	***	

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PERCENTAGE FREQUENCY OF AIR TEMPERATURE VS.
WIND DIRECTION

WILLOW GROVE, PENNSYLVANIA

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TEMP.	S Z Z	NNE NE	ENE ENE	ESE & SE	55E	\$ 5W	wsw w 8	WNW &	CALM	TOTAL FREQ.	% OF TOTAL
122+											
17 10 121											
112 70 116											
107 TO 111											
102 10 106											
101 07 76											
92 10 96											
16 01 78											
82 70 86											
77 70 81					50.0	50.0				2	.2
72 10 76					111.1	66.7	22.2			6	
17 07 79					6.3	56.3	31.3	6.9		16	1.3
42 TO 66				2.9	26.5	32.4	23.5	8.8	3.9	34	2.7
19 01 75	3.1		1.6	7.8	14.1	29.7	25.0	1401	4.7	99	5.2
52 70 56	7.7	3.8	4.8	12.5	12.5	19.2	14.4	1967	1.9	104	8.4
47 TO S1	9.7	3.4	8.0	14.9	9.7	3.6	13.7	4967	8.6	173	14.1
42 TO 46	12.0	3.4	6.5	1661	2.9	7.0	12.8	8 67	11.2	242	19.5
37 TO 41	10.6	1.9	19.3	14.4	3.4	5.7	10.2	0077		797	21.3
32 10 36	16.8	1:1	21.4	5.5	4.5	3.0	10.7	0447		196	15.6
27 70 31	21.3	0.1	13.5	2.5	1.1	1:1	3.6	30.3		89	7.2
22 70 26	30.0	2.0				5.5	12.5	33.0		90	3.2
17 10 21								80.0	20.0	•	4.
12 70 16											
7 10 11											
2 70 6											
-3 10 1											
-8 70-4											
-13 TO -9											
-18 TO-14											
-23 70-19											
-28 10-24											
-33 70-29											
-38 10-34											
-43 TO - 39											
-48 TO-44											
-53 TO -49											
-58 TO -54											
-59 & LWR										***************************************	
TOTALS	11.9	2.0	11.5%	0.01	6.0	4.0	16.6	6675	4.	1640	1440 100.0

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TEMPERATURE	
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VS. WIND DIRECTION

		-			No. Company						-
TEMP.	N Z	N N N	A S	656 & 56	55E	\$5W	wsw w	NNN 8	CALM	TOTAL FREG.	% OF TOTAL
122+											
117 TO 121											
112 70 116											
107 TO 111											
102 TO 106											
101 01 76											
92 10 96						-	100.0			1	.1
16 01 78					16.7	33.3		20.0		9	.5
82 TO 86	6.7					26.7	26.7	33.3	6.7	12	1.3
77 10 81			10.0	2.0		30.0	35.0	13.0		20	1:1
72 10 76	3.6		1.9	3.8	11.5	32.7	34.6	161		25	4.3
17 07 79	2.9		1.5	3.1	2.9	35.4	21.5	10.5		69	5.4
62 70 66	12.0	1.0	1.0	0.2	0.6	26.0	32.0	1000		100	6.9
19 01 72	15.3	0.4	6.9	2.0	7.3	19.0	23.4	1209		124	10.3
52 70 56	13.5	1.0	10.3	10.3	2.6	2.9	17.8	1017		185	15.4
12 01 74	13.4	2.0	14.0	5.5	3.6	8.1	10.4	5112		612	18.3
42 70 46	18.9	2.6	1001	1.0	5.0	4.0	11.2	27.0		196	16.3
37 10 41	25.0	601	0.1	1.01	5.5	5.5	13.0	2005		120	10.0
32 TO 36	31.1	3.4			1.4	3.4	12.2	2066		14	2.0
27 TO 31	36.8						10.5	1674	10.5	67	1.6
22 TO 26	100.0										• 3
17 10 21											
12 TO 16											
7 10 11											
2 70 6											
-3 TO 1											
-8 10-4											
-13 70 -9											
-18 TO-14											
-23 TO-19											
-28 TO-24											
-33 TO-29											
-38 TO-34											
-43 TO - 39											
-48 10-44											
-53 TO -49											
-58 10-54											
-59 & LV/R	•										-
TOTALS	7.01	***			7 . 0	16.3	0	0 . 7 7		2001	1500 1000

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COUENC	3/
REGUENC	37
FREQUENC	7.0
FREQUENCY OF AIR 1	7/2
SE FREQUENC	7.0
AGE FREQUENC	3/
TAGE FREQUENC	7/6
INTAGE FREQUENC	3/1
SENTAGE FREQUENC	3/
RCENTAGE FREQUENC	3/
ERCENTAGE FREQUENC	3/1
PERCENTAGE FREQUENC	3/1

VS. WIND DIRECTION WILLOW GROVE, PENNSYLVANIA

14793

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JAN 1973-05C 1077

HOURS (L.S.T.) ALL

NNE ENE ESE 55E 55W WSW WNW CALM TOTAL % OF & NE & SE & SE & SW & WW CALM FREO. TOTAL	-	PENNSY	SROVE, PENNSYLVANIA	41	WIND DIRECTION	JAN 1973-DEC 1977	3-0£C	1077		HINOM	WAY
		NN 40	S S	£ 5£	55E	\$5 W	wsw & w	WNW &	CALM	TOTAL FREG.	% OF TOTAL

TEMP.	NNN.	NNE .	a .	ESE	55E	wss	wsw	WNW	CALM	TOTAL	% OF
122+	z	2		200	3						
117 10 121											
112 TO 116											
111 07 701											
102 TO 106											
101 07 76											
92 10 96											
16 01 78							100.0			4	.3
82 TO 86						23.5	41.2	17.6		17	1.4
77 TO 81	4.3	1.4		1.4	11.6	21.7	31.9	13.0		69	2.6
72 70 76	6.7	1.4	2.5			30.3	24.4	9 , 2		611	9.6
17 07 79	0.9	2.7	5.5	9.9		18.7	23.6	1392	1201	182	14.7
62 TO 66	4.4	3.00	5.6			16.5	18.4	13.6		902	10.6
19 01 75	12.2	4.2	7.0			14.6	14.1	1301		213	17.2
52 TO 56	11.3	10.8	16.2	12.3		3.9	8.8	10.1		502	16.5
12 07 74	13.1	4.1	6.7	6.7		2.9	11.0	2007	17.2	145	11.7
42 TO 46	22.4	4.5	11.9	4.5	1.5	0.9	3.0	9692	17.9	19	5.4
37 TO 41	7.1					14.3	28.6	35.7	14.3	14	1.1
32 TO 36											
27 10 31											
22 10 26											
17 10 21											
12 TO 16											
7 10 11											
2 70 6											
-3 70 1											
-8 10-4											
-13 TO -9											
-18 TO-14											
-23 TO-19											
-28 TO -24											
-33 TO -29											
-38 TO-34											
-43 TO -39											
-48 TO -44											
-53 TO-49											
-58 TO-54											
~59 & LWR					- 1						
TOTALS	2.01	6.4	1.1	0.7	11.0	14.9	7.5	1204	1203		1540 100.0

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E FREQUENCY OF AIR TEMPERATURE	VS.
PERCENTAGE F	

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CONE	HINOM
 JAN 1973-DEC 1977	1
WILLOW GROVE, PENNSYLVANIA	STATION NAME
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STATION

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HOURS (L.S.T.) ALL

3.6 5.0 1.7 6.2 14.7 22.3 13.9 5.5 17.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1						WIND DINECTION	EC LON					
3.6 3.6 1.2 1.2 100.0 38.5 38.5 38.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3	TEMP.	3 Z Z	NNE NE NE	S ENE	ESE & SE	SSE	SSW 8 SW	wsw w	wnw wn %	CALM	TOTAL FREQ.	% OF TOTAL
3.8	122+											
3.6 8.1 1.2 8.1 1.2 8.1 1.3 8.1 1.5 8.1 1.5 8.1 1.5 8.1 1.5 8.1 1.5 8.2 1.5 8.2 1.5 8.3 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	17 10 121											
3.8 8.1 8.1 8.1 8.1 8.1 8.1 8.1 8	112 70 116											
3.6 3.6 3.6 3.6 3.6 3.6 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	111 07 70											
3.8	02 TO 106											
3.6 1.2 1.2 10.5 22.6 20.9 3.5 36.5 36.5 36.5 36.5 36.5 36.5 36.5	101 01 7											
3.6	12 10 96						100.0				-	. 1
8.1 1.2 1.2 1.2 22.1 32.6 20.9 3.5 5.6 5.6 5.6 5.6 15.0 1.7 24.3 22.6 15.0 6.2 2.4 17.5 17.0 17.5 17.0 17.5 17.0 17.5 17.0 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5	16 01 7	3.8				7.7	11.5	38.5	38.5		92	2.2
5.6 5.6 1.7 6.2 14.7 24.3 22.6 1390 6.2 7.4 25.3 1393 8.2 13.6 13.9 15.0 17.9 14.0 17.9 14.0 17.0 14.0 17.0 17.0 17.0 14.0 17.0 17.0 17.0 14.0 17.0 17.0 17.0 14.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17	12 10 86	8.1		1.2		10.5	22.1	32.6	5002	3.5	80	7.2
7.4 2.3 5.1 4.7 17.6 19.1 22.3 13.3 8.2 8.2 9.1 6.7 12.0 11.2 14.6 13.0 17.9 11.0 14.6 13.0 17.9 11.0 14.6 13.0 14.6 13.0 14.6 13.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15	18 01 7	5.6		1.01	2.9	14.7	24.3	22.6	1300	2.9	141	
6.5 2.4 10.2 10.2 14.5 13.0 17.9 11.0 14.2 11.1 11.8 13.9 13.0 10.0 14.2 12.3 11.8 13.9 13.0 14.4 12.5 37.5 37.5 37.5 37.5 37.5 13.0 14.	2 10 76	4.4		5.1	4.1	17.6	1.61	22.3	1303	8.2	962	21.3
11.8 13.9 16.0 16.3 14.4 9.6 12.0 10.0 14.8 13.9 13.9 14.8 13.9 13.9 13.9 13.9 13.9 13.9 13.9 13.9	7 10 71	6.5		10.2	10.2	14.6	13.0	17.9	1100	7.01	246	20.5
11.8 13.9 15.0 6.3 11.1 4.2 11.1 11.6 13.9 29.8 8.3 14.9 5.4 17.0 0 4 17.0 29.8 12.5 37.9 37.9 20 20 20 20 20 20 20 20 20 20 20 20 20	2 70 44	9.1	0.7	12.0	11.3	14.4	9.6	12.0	10.0	14.6	602	17.4
29.8 8.9 14.9 5.4 17.0 09.6 17.0 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.5	7 10 61	11.8	13.9	19.0	6.9	1111	7.4	111	1198	13.9	144	12.0
	2 10 56	29.8	8.5	14.9		4.9		17.0	9 60	17.0	47	3.9
	7 10 51			12.5				12.5	37.5	37.5	00	
	12 TO 46											
	7 10 41											
	12 TO 36											
	77 10 31											
29 29 29 44 40 50	22 TO 26											
1-9 1-19 1-9 20 20 23 44 44	17 10 21											
1-1-4 1-1-5	12 TO 16											
1-1-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2	11 01											
9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	2 00 6											
9 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	-3 TO 1											
	-8 10-4											
	-13 TO -9											
	-18 TO-14											
	-23 TO-19											
	-28 10-24											
	-33 TO -29											
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VS. WIND DIRECTION

JAN 1973-DEC 1977

WILLUM GROVE, PENNSYLVANIA

14793 STATION

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ALL

1910 1910	TEMP.	3 Z 2	NNE S NE	ENE & E	ESE & SE	55E	SSW & SW	wsw w w	www & ww	CALM	TOTAL FREG.	% OF TOTAL
116.6 11.6	122+											
18.2 18.2 18.6 18.0	1210121											
19.2 19.2 19.6 19.6 19.6 19.0	112 TO 116											
18.2 11.6	111 OT 701											
11.6 11.6	102 TO 106										,	
18.2 18.6 18.6 18.6 18.6 18.6 18.6 18.6 18.6	101 01 26							100,0			-	•
11.6	92 10 96	18.2					27.3	27.3	27.3		=	6.
7.8 .6 1.8 2.4 4.2 18.6 33.5 2.91 6.0 167 14.0 5.4 3.5 5.0 8.5 12.0 23.6 20.2 7.8 258 14.6 4.6 4.6 5.0 13.3 17.0 14.6 24.2 20.0 20.0 17.0 14.6 25.7 25.0 20.0 17.0 14.6 25.7 25.0 20.0 17.0 14.6 25.7 25.0 20.0 17.0 14.6 25.7 25.0 20.0 17.0 14.6 25.7 25.0 20.0 17.0 14.6 25.7 25.0 20.0 17.0 14.6 25.7 25.0 20.0 17.0 14.6 25.7 25.0 20.0 17.0 14.6 25.7 25.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0	16 01 78	11.8				2.0	11.8	47.1	2595	2.0	51	4.1
14.0 5.4 3.5 5.0 8.5 12.0 23.6 20;2 7.8 259 13.3 2.9 3.5 6.0 13.3 1.0 1.2 1.9 9;2 12.7 315 20.0 7.4 6.7 1.5 3.7 3.0 17.0 14;8 25.9 139 36.1 50.0 7.4 6.7 1.5 3.7 3.0 17.0 14;8 25.9 139 50.0 7.4 6.7 1.5 3.7 3.0 11.0 1.1 1.1 1.0 1.0 0.0 50.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	10 86	7.8		1.8	5.4	4.2	18.6	33.5	2501	0.9	167	13.5
13.3 2.9 3.5 6.0 13.3 17.1 21.9 9.2 12.7 31.0 14.6 4.6 5.4 6.5 8.1 12.7 13.1 10.8 24.2 260 36.1 12.0 14.6 24.2 260 36.1 12.0 14.6 24.2 260 36.1 20.0 14.6 24.2 260 36.1 20.0 14.6 24.2 260 36.1 20.0 14.6 24.2 260 36.1 20.0 14.6 24.2 260 36.1 20.0 14.6 24.2 260 36.1 20.0 14.6 24.2 260 36.1 20.0 14.6 24.2 260 36.1 20.0 14.6 24.2 260 36.1 20.0 14.6 24.2 260 36.1 20.0 14.6 24.2 260 36.1 20.0 14.6 24.2 260 36.1 20.0 14.6 26.1 20.	10 81	14.0		3.5	5.0	8.5	12.0	23.6	2002	7.8	258	20.8
14.6 4.6 5.4 6.5 6.1 12.7 13.1 10.6 24.2 260 20.0 7.4 6.7 1.5 3.7 3.0 17.0 14.8 25.9 135 25.0 13.1 11.1 11.1 30.0 30 5	10 76	13.3		3.5	0.9	13,3	17.1	21.9	206	12.7	312	25.4
20.0 7.4 6.7 1.5 3.7 3.0 17.0 14.8 25.9 130 36.1 30.0 30 50.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	10 71	14.6		5.4	6.9	9.1	12.7	13.1	10.8	24.2	260	21.0
36.1 50.0 50.0 50.0 10.7	10 66	20.0		6.7	1.5	3.7	3.0	17.0	14.8	52.9	135	10.9
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WIND DIRECTION

JAM 1973-DEC 1977

WILLUW GROVE, PENNSYLVANIA

14793 STATION

SEPTEMBER MONTH

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TEAAD	NNN	NNE	ENE	ESE	SSE	SSW	wsw	www	20.00	TOTAL	40 %
	Z	S NE	3 8	& SE	8.5	& SW	3 00	% N %		FREO.	TOTAL
122+											
17 10 121											
112 TO 116											
107 TO 111											
102 TO 106											
97 TO 101											
92 70 96	50.0						50.0			2	.2
16 01 78		15.4	7.7		7.7	7.7	46.2	1504		13	
82 TO 86	1001	3.2	3.2	6.4	3.2	6.4	1001	3203	6.5	16	2.6
18 01 77	7.9	1.3	1.3	1.3	9.2	21.1	27.6	26.3	3.9	16	
72 10 76	7.1	1.1	2.7	5.5	6.3	18.6	23.0	1991	13.7	183	15.3
17 07 79	8.2	3.7	5 . 3	6.6	11.5	14.8	17.7	1119	17.3	543	20.3
62 TO 66	13.7	3.4	13.3	8.1	8.7	8.3	14.5	666	17.8	147	20.1
19 01 75	12.9	11.0	18.1	10.5	6.9	8.4	9.5	1100	1881	210	17.5
52 TO 56	17.4	* 6	14.5	3.6	3.0		5.8	13.8	31.9	138	11.5
47 TO SI	12.2	6.1	2.0			2.0	18.4	5000	38.8	64	1.4
42 TO 46	20.0							1000	0.04	2	
37 TO 41	25.0							25,0	20.0	3	6.
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WIND DIRECTION WILLOW GROVE, PENNSYLVANIA

14793 STATION

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						20.0	20.0		7	2.
14.3				14.3		57.1	1403		1	9.
5.9	2.1	2.1	5.7	11.4		25.7	16.7	201	33	8.2
	1:1	4.	4.3	19.1		22.3	1001	8.3	36	1.0
11.5	2.0	1001	5.8	7.2		0.81	1003	12.2	139	11.2
8.4	10.0	14.6	0.6	2.0	-	12.1	7.00	12.1	523	19.3
13.5	15.1	10.7	4.5	5.3	4.9	4.4	1890	12.7	543	19.6
16.2	20	9.6	1.0	1.1	9.6	13.6	1.6.1	2112	861	16.0
18.7	1.0	9.1		4:1	1.4	17.0	2522	18.7	==	13.8
31.7	4.8	6.9			8.4	17.5	8162	1917	63	3.1
28.1	6.0				3.1	6.13	6172	18.6	35	5.0
38.5						1.1	13:4	30.5	13	1.0
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WIND DIRECTION

WILLOW GROVE, PENNSYLVANIA

14793 STATION

JAN 1973-DEC 1977

NOVEMBER MONTH

HOURS (L.S.T.

ALL

120 cm 1	TEMP.	NN %	NNE NE	S S	£5£	SSE & S	\$ 5W	wsw 8 w	W W W	CALM	TOTAL FREQ.	% OF TOTAL
12.0	122+											
12.0	117 TO 121											
4.1 2.0 6.1 14.3 20.4 28.5 12.2 41 8.2 40 6.1 12.0 1.0 0.0 17.3 20.6 40.0 20.0 13.3 1.3 1.3 1.2 1.2 1.2 1.2 1.3 20.4 28.5 12.2 41 8.2 40 12.0 1.2 1.3 20.4 28.5 12.5 12.0 1.2 1.3 20.4 28.5 12.0 1.2 1.3 20.4 28.5 12.5 12.0 1.2 1.3 20.4 28.5 12.5 12.0 1.2 1.3 20.4 28.5 12.5 12.0 1.2 1.3 20.4 28.5 12.5 12.0 1.2 1.3 20.4 21.3 20.	112 TO 116											
4.1 2.0 6.7 20.0 40.0 20.0 13.3 13 4.1 2.0 6.1 14.2 20.4 28.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12	107 TO 111											
100.0 100.	102 TO 106											
4.1 2.0 6.7 20.0 40.0 13.3 13 4.1 2.0 6.1 14.3 20.4 28.0 12.2 401 5.5 3.6 14.5 10.0 17.3 20.0 12.7 40 10.0 5.9 3.6 13.8 12.0 12.0 12.7 40 10.0 5.9 3.8 13.8 12.0 12.0 12.0 10.7 10.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	101 01 76											
4.1 2.0 6.1 14.3 20.0 40.0 20.0 13.3 13 4.1 2.0 6.1 14.3 20.4 28.0 12.2 4.1 8.2 110 12.0 1.9 3.8 18.6 13.8 13.0 12.0 12.0 7.2 167 12.1 5.3 2.7 3.7 7.4 6.4 21.3 30.9 11.2 188 11.6 1.2 1.2 2.3 9.3 20.9 32.6 20.9 80 15.3 11.6 1.2 1.2 2.3 9.3 20.9 32.6 20.9 80 16.7 2 1.2 1.2 2.3 9.3 20.9 32.6 20.9 80 16.7 2 1.2 1.2 2.3 9.3 20.9 32.6 20.9 80 18.8 2.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3	92 10 96											
10.0 5.9 10.0 5.0 37.9 32.5 12.5 10.0 5.0 10.0 6.1 14.9 20.4 28.0 12.2 12.0 12.0 14.5 12.0 12.0 14.5 12.0 12.0 14.5 12.0 12.0 14.5 12.0 12.0 14.5 12.0 12.0 14.5 12.0 12.0 12.0 14.5 12.0 12.0 12.0 14.5 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	87 TO 91											
1000 4.1 2.0 6.1 14.3 20.4 28.5 12.2 4.1 8.2 40 5.5 3.6 14.5 3.6 13.8 15.0 12.7 8.2 110 9.0 4.8 18.6 3.6 13.8 15.0 12.7 8.2 10 12.0 1.9 2.8 3.6 15.0 12.2 4.1 8.2 10 12.1 0.3 7.8 2.9 2.0 10.0 1.2 188 12.1 0.3 7.8 2.9 3.9 20.9 20.9 21.0 15.2 188 13.7 5.9 3.9 3.9 8.2 20.8 25.9 20.9 86 13.7 5.9 3.9 3.9 8.8 22.9 20.9 86 15.3 10.0 10.0 10.0 10.0 10.0 10 16.4 10.5 1.2 1.2 1.3 9.8 22.9 20.9 21.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0 1	82 TO 86											
4.1 2.0 6.7 3.0 37.5 32.5 12.5 40 4.1 2.0 6.1 4.5 8.0 37.5 32.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 1	77 TO 81							100.0			7	7.
4.1 2.0 6.1 14.3 20.4 28.5 12.2 491 9.0 4.8 18.5 3.6 13.8 15.0 12.9 49 12.0 1.9 3.8 3.8 5.1 10.8 32.9 14.6 15.2 158 10.6 5.9 2.7 3.7 7.4 6.4 21.3 30.9 11.2 158 11.5 1.5 5.9 3.9 3.9 3.9 8.3 22.8 20.9 20.0 158 11.6 1.2 1.2 2.3 9.3 20.9 32.6 20.9 18 11.6 1.7 5.9 3.9 3.9 3.9 3.9 3.9 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	72 TO 76				6.7		20.0	40.0			15	
4.1 2.0 6.1 14.3 20.4 28.6 12.2 4.1 8.2 10.0 5.5 3.6 14.5 8.2 10.0 17.3 20.0 12.7 8.2 110 12.0 12.7 8.2 110 12.0 12.0 12.0 12.0 12.0 12.0 12.	17 07 79			2.5	10.0	2.0	37.5	32.5			04	3.3
5.5 3.6 14.5 8.2 10.0 17.3 20.0 12.7 8.2 110 12.0 1.9 3.8 3.8 15.0 15.0 12.9 7.2 157 10.6 5.9 2.7 3.7 7.4 6.4 21.3 30.9 11.2 158 11.6 1.2 1.2 2.9 3.9 20.9 32.6 20.9 80 11.6 1.2 1.2 2.3 9.3 20.9 32.6 20.9 80 11.6 7 5.9 3.9 7.1 3.9 9.8 22.9 20.9 32.6 20.9 80 10.7 5.9 3.9 7.1 3.9 9.8 22.9 20.9 32.6 20.9 80 10.7 5.3 3.9 7.1 1.3 9.8 47.4 10.5 19 10.7 10.7 10.5 19 10.8 47.4 10.5 19 10.8 47.4 10.5 19 10.9 10.9 10.5 10.5 10.	62 70 66	4:1	2.0	6.1	14.3	50.4	28.0	12.2		8.2	64	4.1
9.0 4.8 18.6 3.6 13.8 15.0 12.6 7.2 167 12.0 1.9 3.8 3.8 5.1 10.8 32.9 14.6 15.2 158 10.6 5.9 2.7 3.9 3.9 5.3 22.8 25.2 10.7 20 11.6 1.2 1.2 2.3 9.3 20.9 32.6 20.9 86 5.3 15.7 2.9 3.9 32.8 47.4 10.5 19 16.7 5.9 3.9 5.0 50.0 35.3 50.9 50.0 50.0 50.0 50.0 50.0 50.0 50.0	19 01 75	5.5	3.6	14.5	8.2	10.0	17.3	20.0	1207	8.2	110	9.5
12.0 1.9 3.8 3.8 5.1 10.8 32.9 14.6 15.2 158 10.6 5.9 2.7 3.7 7.4 6.4 21.3 30.9 11.2 158 112.1 6.3 7.8 2.9 3.9 8.3 22.8 25.8 25.2 10.7 20 11.6 1.2 1.2 2.3 9.8 22.9 32.6 20.9 80 15.3 5.3 5.9 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	52 70 56	0.6	8.4	18.6	3.6	13.8	15.6	15.0	1206	7.2	191	13.9
10.6 5.9 2.7 3.7 7.4 6.4 21.3 30.9 11.2 158 12.1 6.3 7.8 2.9 3.9 8.3 22.8 25.2 10.7 200 13.7 5.9 3.9 7.1 2.3 9.8 22.9 20.9 30.0 153 15.3 1.2 1.2 2.3 9.3 20.9 32.6 20.9 80 16.7 20.0 35.3 10.5 19 16.7 20.0 35.3 20.9 35.3 20 2 2 2 3 4 5 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	17 10 51	12.0	1.9	3.8	3	3.1	10.8	32.9	14.6	15.2	158	13.2
12.1 6.3 7.8 2.9 3.9 6.3 22.8 29.2 10.7 200 13.7 5.9 3.9 .7 1.3 9.8 22.9 20.3 21.6 153 11.6 1.2 1.2 2.3 9.3 20.9 37.6 10.5 19 16.7 5.9 3.9 .7 1.3 9.8 22.9 20.9 80 16.7 5.9 3.9 .7 1.3 9.8 22.9 20.9 80 16.7 6.8 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9	42 TO 46	10.6	5.9	2.7	3.7	7.4	9.0	21.3	30.9	11.2	188	15.
13.7 5.9 3.9 .7 1.3 9.6 22.9 20;3 21.0 153 1 11.6 1.2 1.2 2.3 9.3 20.9 32;6 20.9 80 16.7 15.3 19 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	37 TO 41	12.1	6.3		2.9	3.0	8.3	22.8	2962	1001	500	17.2
11.6 1.2 1.2 2.3 9.3 20.9 32.6 20.9 80 5.3 19 16.7 56.0 33.3 0 84 85.0 100.0 33.3 0 85.0 100.0 33.3 0 85.0 100.0 1	32 TO 36	13.7	5.9	3.9	1.	1.3	9.6	52.9	2003	21.6	153	12.8
16.7 35.8 47.4 10.5 19 16.7 50.0 33.3 0 24 25 26 26 27 28 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	27 TO 31	11.6	1.2	1.2		2.3	6.6	50.0	3200		86	1.2
16.7 100;0 33.5 5 0 100;0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	22 10 26	5.3						36.8	4614		19	1.0
100¢0 14 15 16 17 18 19 19 19 19 19 19 19 19 19 19	17 TO 21	16.7						20.0			•	•
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	-59 & LWR					-	•		1			

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TEMPERATURE	
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PERCENTAGE	

WILLOW GROVE, PENNSYLVANIA

WIND DIRECTION JAN 1973-DEC 1977

ALL

DECEMBER

	CALM TOTAL % OF FREG. TOTAL														^;	14.0 41 3.3			092	162	187 1		96	33	7.7														
	N N N N														1			6:67	1	1	17,1			0.00	13:4														
	% & %													14.3		8.6	20.0	181	13.8	13.7	17.6	1001	6.22	9.82	61.5	100.0													
CTION	SSW S SW													5/01	30.08	14.5	21.5	0.6	2.0	1.3	9.1	0	6.3	6.2															
WIND DIRECTION	SSE													58.0	30.0	43.9	6.51	0	204	5.5	4.3	2.6																	
	ESE & SE														5.3	4.9	9.1	9.9	3.1	4.1	2.1	6.	2.1																
	ENE E E																4.0	11.4	17.3	7.6	5.3	4.0	2.4																
	NN. NE																3.1	3.6	3.4	12.0	2.3	1.3	1.0																-
	N Z														10.5	6.9	12.3	0.6	3.6	12.4	20.3	18.3	13.5	9.6	15.4														
	TEMP.	122+	17 TO 121	12 TO 116	111 07 70	02 TO 106	7 TO 101	12 10 %	16 01 7	12 TO 86	7 10 81	2 10 76	7 10 71	2 TO 66	19 01 7	2 10 56	7 70 51	12 TO 46	17 TO 41	12 TO 36	12 10 31	22 70 26	17 10 21	12 TO 16	11 01	2 70 6	-3 TO 1	-8 10-4	-13 70 -9	-18 TO-14	-23 10-19	-28 10-24	-33 10-29	-38 70-34	-43 10-39	-48 TO44	-53 TO -49	-58 TO -54	

NAVWEASERVCOM

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WIND DIRECTION

JAN 1973-DEC 1977

WILLUW GROVE, PENNSYLVANIA

ALL

HOURS (L.S.T.) ALL

9 9 9 3.4 7.7 0 70 9.2 8 - 1 - 8 14608 100.0 3.5 % OF TOTAL 1411 1273 808 465 1349 1138 160 164 70 FREG. 12.2 14.2 12.9 CALM 23:22 18.7 12:0 8097 8962 2007 9967 31.9 8677 21.2 0.62 38.7 × × × × 18.5 14.6 22.6 17.4 16.4 13.1 13.4 26.0 65.5 25.3 35.5 52.4 30.1 wsw % 11.3 SSW S SW WIND DIRECTION 0. 4 4 6 12.2 SSE & S 5.3 7.3 2.0 ESE & SE 11.5 6.3 11.3 ENE R 2.5 4.2 5.4 5.1 5.0 NNE S NE 7.8 12.7 15.6 10.3 9.6 8.5 12.3 12.5 18.2 18.9 17.4 19.4 14.3 12.2 13.7 14.1 ≥ Z Z Z -18 TO-14 -23 TO-19 -28 TO-24 -33 10-29 -38 10-34 -48 TO-44 -53 10-49 -58 TO -54 -43 10-39 13 10 -9 59 & LWR 72 10 76 TOTALS 112 TO 116 17 07 78 57 10 61 52 TO 56 47 TO 51 42 TO 46 37 TO 41 32 10 36 27 TO 31 22 TO 26 17 10 21 111 07 701 02 10 106 101 01 76 92 10 96 16 01 78 32 TO 86 18 01 7 62 TO 66 8 10-4 17 10 121 -3 TO 1 12 TO 16 10 11 2 70 6 TEMP. 122+

NAVWEASERVCOM

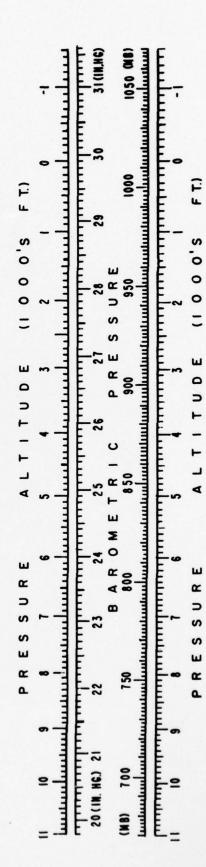
PART F

PRESSURE SUMMARY

for all hours combined. All years of data available are combined in both of these tables, although the overall of station pressure and sea-level pressure by month and annual for the local hourly observations corresponding Presented in this part are two tables giving the means, standard deviations, and total number of observations to the eight 3-hourly synoptic times GCT. The same computations are also provided at the bottom of the page period is limited to January 1946 through December 1963 because of changes in reporting practices before and after those dates.

- 1. Station pressure in inches of mercury.
- 2. Sea-level pressure in millibars.

altitude in 1000's of feet. This scale is an enlarged model of the pressure altitude scale in the Smithsonian Provided below is a scale to convert station pressure values in inches of mercury or millibars to pressure Meteorological Tables.



MEANS AND STANDARD DEVIATIONS

STATION PRESSURE IN INCHES HG FROM HOURLY DBSERVATIONS

73-77

WILLOW GROVE, PENNSYLVANIA

14793

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ANNUAL	5 29.6	85 .219	5 18	56 29.6	89	55 1826	8 29.6		5 18	90 29.67	94 .22	5	40 29.63	96	55 182	3 29.61	8 .22	-	7 29.62		5 182		4 29.64	64 29.647
DEC	529.	36 .2	0	229.	6		129.	40 .2	0	829.	40		429.		a	929.			429.		c		329.	7329.6
NOV	429.6	. 2	5	129.6	6 .2	5 1	229.6	3 .2	2	429.6	2. 2	2	729.6	1 .2	2	629.6	5 . 2	2	529.6	2 .2	2		956.6	929.6
OCT.	129.70	•	7	29.7	N		829.72	7 .21	-	329.7	.2		29.6	73 .22	1	9.62	.2		9.6		-		7.62	929.70
SEP.	29.68	.16	15	29.67	.16	15	29.		7	29.70	.17	15	29.6		7	29.64	.16	15	9.65	2 .16	15		29.67	29.67
AUG.	-	.118	15	-	.11	-	0	.120	13	0	.12	2	93		2	10		2	29.66	.11	15		29.68	29.685
JUL.	9.620	. 143	15	9.615	. 145		9.639	.147	5	9.645	146	2	9.623	. 145	13	9.596	.141	15	9.899	.139	15		9.621	9.621
JUN.	61	172	15	9	174	2	63	174	5	63	175	5	9.6	173	2	9.58	171	12	50	167	13		618	9.6182
MAY	862	. 163	3	812	167	-	9.6092	.170	15	260	173	15	802	171	5	502	165	-	602	150	2		5872	.5872
APR.	0	.232	15	0	.243	15	N	.255	5	1	260	15	9.3872	.248	-	1	.235	15	-	. 223	5		.603	9.6032
MAR.	.6182	.261	5	.6112	.262	15	.6362	.266	1	49.	275	155	.6022	.286	5	.56	.279	158	50	271	IC		613	9.6122
FEB.	9.63029	.276	141	9.6212	. 279	141	9.6402	.267	141	9.6602	.265	141	9.6242	.262	141	9.6002	.261	141	9.6202	.257	141		9.6332	9.6332
JAN.	29.66129	.257	155	29.66229.62129	.255	155	29.67629.64029	.256	155	29.70329.66029	.264	155	29.65129.62429	.268	155	29.64129.60029	.271	155	29.66229.62029.	.270	155		29.6772	29.67729.63329.
	MEAN	S. D.	TOTAL OBS	MEAN	S. D.	TOTAL OBS	MEAN	S. D.	TOTAL OBS	MEAN	S. D.	TOTAL OBS	MEAN	S. D.	TOTAL OBS	MEAN	S. D.	TOTAL OBS	MEAN	S. D.	TOTAL OBS	111	MEAN	S. D.
HRS.(L.S.T.)		0.1			50	,		07			10			13			16			19				22

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MEANS AND STANDARD DEVIATIONS

SEA LEVEL PRESSURE IN MBS FROM HOURLY OBSERVATIONS

STATION			125	STATION NAME						YEARS			1	
HRS.(L.S.T.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL	AUG.	SEP.	OCT.	NOV.	DEC.	ANNUAL
10	S. D. TOTAL OBS	8.848 9.517 8. 155 141	9.517	7.0	7.918	1015.7 5.598 155	1016.5 5.886 150	1016.7 4.935 155	4.062	1018.9 5.516 150	1019.8 7.495 155	8.138 8.138	1018.4 9.830 155	1017.7 7.533 1826
40	S. D. TOTAL OBS	8.782 9.653 9.	9.653	52.5	8.264 150	1015.6 5.745 155	5.944	1016.5 5.117 155	1018.6 4.114 155	1018.6 5.652 150	1019.7	1018.5 8.220 150	1018.5	1017.6 7.638 1826
10	S. D. TOTAL OBS	8.852 9.273 9.	9.273	7.7	8.778 8.778	1016.5 5.863 155	5.964 5.964 150	1017.3 5.046 155	4.159	5.19.5 5.757	7.361	1019.2 8.266 150	1018.9 9.949 155	1018.4 7.658 1826
10	S. D. TOTAL OBS	1020.11018.6101 9.090 9.149 9.	9.149	466	1016.9 8.906 150	5.932	1017.2 5.997 150	1017.5 4.998 155	1019.6 4.152 155	5.872	1020.8 7.659 155	1019.7 8.205 150	1019.5	1018.7 7.800 1826
13	S. D. TOTAL OBS	1018.31017.3101 9.232 9.044 9. 155 141	9.044	4.68	8.532	5.827	1016.3 5.904 150	4.947	1018.8 4.126 155	1018.5 5.936 150	1019.4 7.579 155	1018.1 8.096 150	10.194	1017.4
16	S. D. TOTAL OBS	1017.81016.4101 9,405 9.017 9.	9.017	583	1014.6 8.003 150	5.631 5.631	1015.5 5.829 150	1015.8 4.796 155	3.966 3.966 155	1017.5 5.793 150	1018-8 7.374 155	1017.6 8.053 150	1017.6 9.911 155	1016.6
19	S. D. TOTAL OBS	1018-61017-2101 9.389 8.892 9. 155 141	8.892 141	303	1015.2 7.620 150	5.356	5.713	4.762	1018.0 3.843 155	1018.0 5.594 150	1019.4 7.287 155	7.867	9.729	1017.1 7.495 1826
22	S. D. TOTAL OBS	9.019	9.019 9.096 9.	100	7.761	1015.7 5.396 155	5.73	4.770	3.914	1018.9 5.573 150	1020.0 7.618 155	1018.8 7.855 150	1018.7 9.800 155	1017.9
ALL	S. D. TOTAL OBS	1018-81017-5101 9.077 9.199 9.	9.199	322	8.246	5.700	5.884	1015.6	1018.7	1018.7 5.736 1200	1019.8	8.087 1200	9.940	1017.7

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